The Kieperts' Asia Minor Ancient and Ottoman: Capstones of Route-Based Cartography

Richard J. A. Talbert

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The Kieperts' Asia Minor Ancient and Ottoman:
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Richard J. A. Talbert

Cover illustration:
Detail from Heinrich Kiepert, *Specialkarte vom Westlichen Kleinasien* IV
(1:250,000 scale, 1890)

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In Memoriam

Stephen Mitchell (1948–2024)

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Contents

Abbreviations i

Preface and Acknowledgments iii

The Kieperts' Asia Minor Ancient and Ottoman

Introduction 1

1. Origins of *Specialkarte vom Westlichen Kleinasien*:
   Heinrich Kiepert's Initiatives 2
2. *Specialkarte* and its Revision 4
3. Origins of *Karte von Kleinasien*:
   Heinrich and Richard Kiepert's Initiatives 6
4. *Karte von Kleinasien* 10
   Maps, Editions, Dates 12
   Credits for "Construction" and Engraving 15
5. "Construction": *Specialkarte* 18
6. "Construction": *Karte von Kleinasien* 23
7. Revision: *Karte von Kleinasien* 30
   1908–1909 30
8. Second Edition: *Karte von Kleinasien* 31
   1910 31
   1911 32
   1912 33
   1913 35
   1914 35
   1915 37
9. Further Second Editions: *Karte von Kleinasien* 37
10. Third Edition: *Karte von Kleinasien* 38
11. Fourth Edition and Later Revisions: *Karte von Kleinasien* 38
12. Conclusion 40

Appendix: Individuals and Groups Credited as Informants for *Specialkarte vom Westlichen Kleinasien* and *Karte von Kleinasien* 45

Bibliography 89

Table 1: *Specialkarte vom Westlichen Kleinasien*: Informants Credited for Spot-Heights 95

Table 2: *Karte von Kleinasien*: Named Individuals and Groups 97

Figures 105

Abbreviations

ADB	*Allgemeine Deutsche Biographie*
BNF	Bibliothèque nationale de France, Paris
BSGI	*Bollettino della Società Geografica Italiana* 6.1 (1905) 1022 (in "Bibliografia 1902")
CFOA	Société du Chemin de Fer Ottoman d'Anatolie
CIOB	Chemin de Fer Impérial Ottoman de Baghdad
DAB	*Dictionary of American Biography*
DBC	*Dictionary of British Classicists*
DBE	*Deutsche Biographische Enzyklopädie*
DBF	*Dictionnaire de Biographie Française*
DHP	Société Ottomane du Chemin de Fer de Damas-Hama et Prolongements
Enc Iranica	*Encyclopaedia Iranica*
FOA	*Formae Orbis Antiqui*, H. Kiepert. Berlin: Reimer, 1894–1914 [unfinished]
Forgotten. 2022–2023	*Mapping Late Ottoman Turkey in Princeton's Forgotten Maps, 1883–1923* (virtual exhibition, https://arcg.is/PTCOm). Princeton: Princeton University Library
GAGW	*Geographers of the Ancient Greek World*, ed. D.G.J. Shipley. Cambridge: Cambridge University Press, 2024
GBBS	*Geographers: Biobibliographical Studies*
ICSL	*International Catalogue of Scientific Literature* 3 (June 1905) 263
IDWO	(British) Intelligence Division War Office
JRGS	*Journal of the Royal Geographical Society* (London)
Kiepert-Zimmer	This room in the royal (later state) library in Berlin held the extensive *Nachlass* of Heinrich and Richard from 1917 until its evacuation in 1941; much of it then went missing during or after World War II. Many of the items still lost are at least listed in the manuscript *Systematischer Katalog der Kartenabteilung bis 1945: Sachgruppen- und Signaturübersicht: Asia/Asien I* kept in the Kartenlesesaal, Unter den Linten, also available on microfiche (Hildesheim: Olms, 1991). I refer to such items by number and page in this catalog volume (where they are noted in red as "Kiep.", but without a tick mark if lost). Entries for the items can also now be found in the online catalog of the Staatsbibliothek Berlin.

KvK brochure	*Karte von Kleinasien* 1901 *and* 1929 editions unless otherwise stated
LOC	Library of Congress, Washington, DC
NDB	*Neue Deutsche Biographie*
ODNB	*Oxford Dictionary of National Biography*
ÖBL	*Österreichisches Biographisches Lexikon 1815–1950*
ORC	Ottoman Railway Company
Pet Mitt	*Petermanns Geographische Mitteilungen*
RE	*Real-Encyclopädie der classischen Altertumswissenschaft*
SCP	Société Ottomane du Chemin de Fer Smyrne-Cassaba et Prolongements
SpecK (1890)	Heinrich Kiepert's Begleitworte for *Specialkarte vom Westlichen Kleinasien* first instalment
— (Nov. 1890)	for the second instalment
— (1891)	for the third instalment
WBIS	*World Biographical Information System Online* [cited only for individuals missing from a standard biographical reference work]
Z. allgem. Erdk.	*Zeitschrift für allgemeine Erdkunde*
Z. Ges. Erdk. Berlin	*Zeitschrift der Gesellschaft für Erdkunde zu Berlin*

Preface and Acknowledgments

This volume probes a pair of Asia Minor map series published by the Kieperts between 1890 and 1916 — father Heinrich's *Specialkarte*, and son Richard's *Karte von Kleinasien*. The volume links with two recent contributions to form a triad. The two are: first, a virtual exhibition (Princeton University Library, 2022–2023) featuring these Kiepert maps and many others of Late Ottoman Turkey between 1883 and 1923; and second, my article in *History of Classical Scholarship* 4 (2022) documenting and discussing continued use of the Kiepert maps through World War I to around 1940. In order to complete the publication of the triad, I did not hesitate to approach the editors of *HCS* again, and am most grateful to them and their anonymous readers for generous acceptance of a second submission, this one too lengthy for an article but suitable for a supplementary volume.

No less appreciated is the editors' recognition that publication by a journal focused on classical antiquity is appropriate, even when an initial impression of the Kieperts' series might point to Ottoman studies, say, or the history of cartography as a better fit. For certain, either of those fields would be equally appropriate, because the series also belong in both, and no single field has a clear claim to precedence. However, my own engagement is closest with classical antiquity, and I recall that — by his own account — Heinrich Kiepert's abiding passions from an early age were classical philology and history on the one hand, alongside geography and cartography on the other.[1] Moreover, when by chance the opportunity first arose for him (still a student!) to visit Asia Minor in 1841, it was to join a state-funded expedition headed by an antiquary and a naturalist rather than a privately financed initiative for exploiting mines, say, or constructing railroads.

What then became, and remained, Heinrich's regular practice of representing both ancient and contemporary Asia Minor together on his maps may seem eccentric and ill-judged today, but in the 19th and early 20th centuries it was typical and made sound sense. It reflected how Asia Minor's vast, varied and often forbidding landscape remained largely *terra incognita* to Europeans. Travel there made strenuous demands. Seasoned explorers even in the early 20th century — such as Walther von Diest, Richard Leonhard, Alfred Philippson — offer detailed guidance on choosing a horse, hiring staff, assembling equipment, and much more. It is true that the fitful extension of railroads gradually improved access, but

[1] Talbert (2019) 61–62.

by no means everywhere. Writing in 1909, Guillaume de Jerphanion reflects on the accelerated pace of exploration (p. 368):

> Le grand mouvement d'exploration de l'Asie Mineure, qui date d'hier, prend, de jour en jour, des proportions plus considérables. Dans les vingt dernières années, on a plus voyagé en Orient qu'on n'avait fait durant les deux siècles précédents, et, chaque printemps, géographes, archéologues, ingénieurs, commerçants, débarquent, toujours plus nombreux, à Smyrne, à Samsoun, à Trébizonde, à Mersine, aux stations du chemin de fer, pour se lancer dans l'intérieur. Telle region inexplorée il y a dix ans a été, depuis, traversée à plusieurs reprises.

However, the vividness here has a rhetorical tinge which may exaggerate Jerphanion's point. If some of his readers too hastily inferred that in 1909 a railroad was open at either of the ports Samsun or Trebizond, or even within striking distance, they would be mistaken. To be sure, at Mersin there was a railroad, but it did not extend far at that date, still less run inland.

To the great majority of educated Europeans with no prospect of traveling there themselves, Asia Minor held out powerful allure because of their double immersion in classical studies at school and in the New Testament at church, not to mention their fascination with the thrilling rediscovery of lost ancient cities, monuments and artworks. Such endeavors became a source of intense rivalry between nations. Books and articles about travelers' experiences in Asia Minor found an enthusiastic audience. Among Europeans — but not Ottomans — vague ancient regional names such as Cilicia, Mesopotamia, Paphlagonia were commonly used even when referring to the present rather than the past. On maps of Asia Minor, Europeans naturally wished Troy and Ephesus, for instance, to be marked, and the ancient — perhaps more familiar — names for, say, Brussa, Kaisarije, Konia, Orfa and Kyzyl Yrmak to be included. This is not to imply that either the Kieperts or most users for whom their maps were intended attached lesser value to comprehending the contemporary landscape, both physical and cultural. Rather, there was widespread attention to *both* the past *and* the present, matched with alertness (registered by Jerphanion) to the extraordinary potential which Asia Minor offered for exploitation, modernization, settlement, and even — after military campaigns perhaps — annexation.

Despite the lack of surviving figures for print-runs or sales, there can be no question that the Kieperts' two series — *Karte von Kleinasien* especially — at once became standard works of reference acquired and used worldwide in all spheres, public and private, civil and military. The

frequency with which copies of the maps can be found in folded 'field' or 'pocket' format — that is, cut into tiles mounted on cloth backing — confirms their use during journeys. As with other Kiepert maps, that name alone could erase any doubt about accuracy or trustworthiness. In 1906 the experienced explorer William Ramsay, having commented on *Karte von Kleinasien*'s mapping of an area well known to him, vents his frustration (p. 254):

> I have utterly failed to make the professional geographers in England believe that there are faults in Kiepert, or to induce them to vary from the published maps. You may spend weeks or months in drawing a better map; you put it into the professional geographers' hands and out comes the old Kiepert unchanged, and the draftsman is quite hurt at your ingratitude, after he has taken so much care to correct all your vagaries and variations from the standard map.

It is no surprise therefore that the British *Asia Minor* Admiralty Handbooks issued in 1918–1919 quite explicitly indicate their reliance on *Karte von Kleinasien* (work of the enemy though it was), along with a British General Staff series in fact designed as an enlargement of it![2] As one further illustration of its authoritative status, we may note Italy's proposal in July 1919 that the British General George Milne's demarcation of the Greek and Italian zones of occupation along the Menderes river should be officially recorded on its map CI *Smyrna* (ed. 2, 1911).[3]

Given the manifest importance of both Kiepert series for the history of mapping Asia Minor (Turkey from 1923), the fact that only now are they being studied and evaluated as major cartographic achievements of the late 19th and early 20th centuries calls for explanation. Some reasons are immediately apparent. Even though no other method was permitted in the Ottoman empire until 1908, the maps' route-based construction has long been considered too antiquated, not to say classical, to engage cartographers' close attention. While both series with their accompanying texts (such as they are) do survive complete as published in the first instance, almost certainly some of the subsequent revisions of the maps are now lost, and several of those known give cause for puzzlement. In addition, most of the extensive materials associated with the maps' construction were either destroyed by bombing in World War II, or went missing then or soon afterwards, with scant hope now of recovery.

[2] Talbert (2022) 188.

[3] Ibid. 193.

One essential task only made a tougher challenge by these losses is identification of the 200 and more individuals whom the Kieperts name as informants (usually stating surname only). After a prolonged, often disheartening quest, my Appendix to the volume can at least present a proposal in every case, but inevitably with greater confidence and fuller information concerning some categories of informant than others. Their range is very broad, international, and spread over a century. Engineers, for example, are often elusive. On the other hand, research by the celebrated epigrapher Louis Robert (1904–1985) in particular has proven invaluable for identifying the many travelers variously preoccupied with antiquities.

During the past decade or so, by chance two unrelated developments have together transformed the potential for a rewarding study of both Kiepert series. First, Ségolène Débarre's 2016 monograph *Cartographier l'Asie Mineure: L'orientalisme allemand à l'épreuve du terrain (1835–1895)* — with the growth of Heinrich Kiepert's involvement among its principal themes — provides a most instructive foundation, although without devoting special attention to either series; *Karte von Kleinasien* was in any case not even launched until 1901. Second, with large-format scanners now widely available, together with digital technology that enables scanned maps to be stored, transmitted and shared conveniently, even a single laptop suffices for viewing, analyzing and comparing countless images, and at high resolution. For study of the two Kiepert series with their maps dispersed either side of the Atlantic (but nowadays traceable through online catalogs), research that earlier would have been just marginally feasible has now become entirely practical. University libraries at Princeton, Stanford and elsewhere, together with the Library of Congress, the New York Public Library and the Bibliothèque nationale de France (in partnership principally with the Institut Français d'Etudes Anatoliennes, Istanbul), are due special thanks for making so many of the relevant maps freely accessible online.

As always, my thanks go to UNC Chapel Hill and to its Ancient World Mapping Center for research support, provided especially by Safia Bamba, Leah Hinshaw, Lindsay Holman, Sellers Lawrence, Peter Raleigh, Laura Roberson, and Rachel Sarvey. I am greatly indebted to John Falconer and Till Knobloch for their painstaking translation of much dense German into lucid English. Equally great is my debt to Wolfgang Crom, Ségolène Débarre, Markus Heinz, Pascal Lebouteiller, Didier Marcotte, Nick Millea, Werner Riess, Charlotte Roueché, Julie Sweetkind-Singer, and Tsering Wangyal Shawa, all of whom supplied materials, answered queries, and shared their expertise with unfailing generosity. Kind hosts at universities in Ankara, Iowa, Princeton and

Stanford, as well as at the Ecole Normale Supérieure, Paris, offered invaluable opportunities to speak about the Kiepert map series and to learn from audience members' comments.

It was the first of these invitations — extended by Lutgarde Vandeput and Stephen Mitchell to contribute to the 2014 Ankara University conference *Pathways of Communication: Roads and Routes in Anatolia from Prehistory to Seljuk Times* — that decisively motivated me to undertake a full investigation of both map series. They had come to my attention during the 1990s while heading the Classical Atlas Project that created the *Barrington Atlas of the Greek and Roman World* (2000). I viewed them with awe as well as mounting frustration because, despite the respect both clearly commanded, they seemed to lack even a basic study. Stephen Mitchell, who oversaw the mapping of Asia Minor for the *Barrington Atlas* and contributed to it substantially himself, encouraged my interest in remedying this deficiency. As the project gradually expanded far beyond initial expectation into a triad, he not only appraised draft sections masterfully, but also from his expansive knowledge recommended a stream of contacts, materials and publications to pursue. His sudden death early this year came as a severe shock, and marks a grave loss for all the fields to which he contributed. For my own small part, I deeply regret that he did not live to see even a final draft of the present volume. It owes more to him than anyone. I dedicate it to him with sorrow, gratitude and admiration. Needless to add, its slips and shortcomings are mine alone.

Richard Talbert,
Chapel Hill, NC
July 2024

The Kieperts' Asia Minor Ancient and Ottoman

Introduction

To probe the construction and production of two ambitious series of Kiepert maps that long dominated the cartography of Asia Minor, and to reassess their relationship with the aid of largely forgotten accompanying texts, places them in revealing fresh perspective. No such attempt has yet been made. Dietrich Reimer of Berlin — a leading press with which Heinrich and Richard were closely associated — published both series. Heinrich's *Specialkarte vom Westlichen Kleinasien (SpecK)*, 15 lithographed maps covering the west at an unprecedented 1:250,000 scale, appeared between 1890 and 1892. At the instigation of Colmar von der Goltz, head of the German military mission based in Constantinople, a team of Ottoman officers at once gained invaluable experience by making an improved enlargement in Turkish at 1:210,000.[4] Following the 1908 revolution, this then served as the foundation for further revision by the Ottoman General Staff.[5] After Heinrich's death in 1899, his son Richard between 1901 and 1907 produced *Karte von Kleinasien* (*KvK*), a set of 24 engraved maps at 1:400,000 spanning Asia Minor in its entirety. Revisions were then issued in bewildering profusion between 1908 and 1916, followed finally by a reissue in 1929. Over 200 individuals are named as sources of information, some of them already tapped earlier for *SpecK*, as the Appendix below identifying them demonstrates. Through World War I and the subsequent two decades, unforeseen circumstances left *KvK* with no rival set of maps combining such coverage and detail; it was only superseded entirely during World War II. Up to 1921, copies of *KvK* maps were produced at various scales by the British, Greek and Ottoman General Staffs, and reprinted by the British as late as 1940.[6] For classical and Byzantine studies, *KvK* continued in use long after World War II. Into the 1960s it was repeatedly praised by the epigrapher and tireless traveler Louis Robert, and was still being recommended to researchers much later.[7]

[4] See the Princeton virtual exhibition *Late Ottoman Turkey in Princeton's Forgotten Maps, 1883–1923* (2022–2023; hereafter abbreviated *Forgotten*) IV.24; Talbert (2022) 194–95.

[5] See *Forgotten* IV.25.

[6] See *Forgotten* II.12, 13 (British); III.17–19, 22 (Greek); IV.29, 30 and further below (Ottoman).

[7] For all these aspects of *KvK*'s impact (long forgotten outside Turkey), see Débarre (2015); Talbert (2022).

Even when forgotten texts are brought into consideration, there is no escaping the fact that little was ever published about the planning and construction of either *SpecK* or *KvK*. Further unpublished material might be sought in the once extensive *Nachlass* of both Heinrich (died 1899) and Richard (died 1915), but what survives now is of limited value. After acquiring the Nachlass from the Kiepert family in 1917, the Prussian royal library in Berlin (today Staatsbibliothek) assigned an entire room to it ("Kiepert-Zimmer"). In 1941, however, this archive was moved out of the city for safe-keeping. Then, after World War II ended, when the archive was brought back, much was found to have gone missing at some stage in unexplained circumstances. These lost items have still to be recovered.[8] Only their titles survive.[9] No doubt records kept by the publisher Dietrich Reimer would be likewise informative, but everything was destroyed when Reimer's premises in Berlin were bombed in April 1945.[10]

1. Origins of *Specialkarte vom Westlichen Kleinasien*: Heinrich Kiepert's Initiatives

In 1841–1842 Heinrich Kiepert (1818–1899), still a student, joined an expedition to western Asia Minor headed by the antiquary August Schönborn and the naturalist Friedrich Löw. Thereafter it remained his unwavering ambition to map this vast, little-explored region definitively. He began collecting the itineraries of Europeans who had traveled there, and published his first map in 1844: *Karte von Klein-Asien* in six sheets at 1:1,000,000 scale.[11] It has a double focus on both the past (Greek, Roman and Byzantine periods especially) and on the contemporary landscape. For years thereafter Heinrich mapped Asia Minor at smaller scales within the wider framework of the Ottoman empire.[12] He also published a *Memoir über die Construction der Karte von Kleinasien und türkisch Armenien* (1854), and returned to western Asia Minor in 1870 and again in 1886.

Heinrich's forgotten six-sheet *Asiae Minoris Antiquae Tabula in Usum Scholarum Descripta* or (in French translation) *Carte Murale de l'Asie Mineure Ancienne* [for schools' use], published by Reimer in 1888, marks the start of a new stage. Here Heinrich presents Asia Minor

[8] Zögner (1999) 8–9.

[9] See further s.v. Kiepert-Zimmer in the Abbreviations list above.

[10] Wolzogen (1986) 7 n. 2, 73.

[11] Débarre (2021) 2; *Forgotten* I.1.

[12] See the listing by Débarre (2016) 345–46 (which, however, omits the 1888 map and text mentioned in the next paragraph); *Forgotten* I.1–3.

exclusively (in antiquity only, moreover), and at 1:800,000, a larger scale than before. [**Fig. 1**] His four-page text written to accompany this map and dated April 1888, contributes vital insight.[13] It summarizes the numerous continuing difficulties of mapping the interior of Asia Minor (lack of points with reliably calculated co-ordinates in particular), outlines the advances in knowledge made by travelers since the 1840s, and explains Heinrich's plans for issuing a fresh series of maps reflecting the more confident grasp now attainable, albeit one still with numerous limitations, in the east especially. This series — with double focus again on both the past and the contemporary landscape — was to comprise 24 maps with even more generous coverage, mostly at 1:500,000, but showing western coastal areas at 1:250,000. However, no further information about the sheet-lines is offered, nor is even a draft locator index appended. Heinrich explains that the base for his 1888 *Tabula* was a simplified reduction of the base for the series. Even earlier evidently, he had been able to make a similar reduction for part of his smaller-scale (1:1,500,000) *Nouvelle carte générale des provinces asiatiques de l'empire Ottoman (sans l'Arabie)* published in 1883.[14] Hence the plan for the series must have been settled by around 1880. In his April 1888 text Heinrich states that it will be published within a short time, in all likelihood before the year's end, after some corrections and additions had been inserted that a further journey to Asia Minor during the summer would allow him to finalize.

Even though Heinrich undertook such a journey in 1888,[15] there was no publication of the series that year. Two years later, however, he did begin to issue the 1:250,000 maps planned for the west, 15 in total, their coverage extending eastwards as far as Adalia (thus including more than just coastal areas in fact). This series entitled *Specialkarte vom Westlichen Kleinasien* — with all labels in German, French and English — appeared in three instalments in 1890–1891, each with important accompanying text (*Begleitworte*) that has been largely forgotten.[16] In addition, an index map (dated 1892) outlining Ottoman imperial administrative divisions was included in the third instalment, together with a brief text. This instalment's cover-page also announced a supplementary half-size map (dated 1892) extending VI's coverage eastwards to

[13] BNF holds a copy in French, the only version of the text known to me; no doubt it was also issued in German at least.

[14] See *KvK*'s launch brochure dated October 1901 for this claim (*Forgotten* I.7). For the 1883 map, ibid. I.3.

[15] Débarre (2016) 290–91.

[16] Stanford University Library holds a copy of the Begleitworte.

show the continuation of the CFOA railroad to Angora (opened at the end of that year).[17]

2. *Specialkarte* and its Revision

SpecK comprises 15 maps (49 x 62 cm) oriented north at 1:250,000, issued in three Lieferungen ("instalments") as follows:[18]

Erste Lieferung (evidently without cover-page)
Übersichtsblatt (1890) [**Fig. 2**], with text and date (April 1890) on reverse (p. 2). Next, unnumbered p. 3, headed Begleitworte (1890). Numbered pp. 4–8 follow, with section header Orthographie on p. 6, and two further such headers — Statistik, Hypsometrie — on p. 8. On the Übersichtsblatt each map has one placename (as listed here) marked prominently in full capitals, but on the maps themselves there is only a (Roman) number, without any title-name. In the top left margin of each map, *SpecK*'s title is shortened to *Westliches Klein Asien*. For the graticule, lines are drawn at ten-minute intervals, with Greenwich the prime meridian along the top margin, Paris along the bottom. No letters or numbers for referencing locations are placed in any margin.
I Gallipoli (title-map for the series)
II Constantinopel
VII Smyrna
X Samos
XIV Rhodos

Zweite Lieferung cover-page (1890)
Begleitworte dated November 1890 (2 pp.)
III Ismid
IV Dardanellia
V Brussa
VIII Alaschehir
XIII Kos

[17] For dates of line openings, see Robinson (2006) 50–55. For railroads and their development, Imhoff (1915) in brief, and more fully *Turkey* II (1943) 236–49, 256, 268–77, 289–302, 315–27, 330–45.

[18] *Forgotten* I.6.

Dritte Lieferung cover-page (1891), which also announces a supplementary map showing the continuation of the CFOA railroad to Angora (see below)

Begleitworte dated November 1891 (2 pp.)
VI Kiutahia
IX Afiun-Karahissar
XI Aidin
XII Isparta
XV Adalia
Übersichtsblatt mit der Administrativen Einteilung der in der Karte enthaltenen Provinzen des Osmanischen Reiches (dated 1892) [**Fig. 3**], with single page of text in German, French and English
In addition, for an extra charge (2 Mark), Ergänzungsblatt 1:250,000 (half-page), dated 1892: Fortsetzung der Eisenbahnlinie nach Angora, im östlichen Anschluss an Sect. VI. [**Fig. 4**]

It seems that in the first instance each map (I–XV) carried the date 1890. Later, however, in at least some instances, the date was changed to 1890/91: compare the maps XII and XV held by Princeton University with those at the New York Public Library. Still later, again in at least some instances, the date was changed to 1896 (see Princeton's II and V), or it was removed altogether (Princeton's VI, VIII, IX, XI). How many reissues there were, and whether some incorporated corrections or additions, is unclear. Even so, any map specifically termed a fresh edition has yet to be found. To be sure, there would have been no good reason to prepare one after the decision had been taken to supersede *SpecK*'s maps with the smaller-scale *KvK* discussed below.

Nonetheless a partial revision was made, albeit undated and with puzzlingly little documentation. Before then, too, Reimer cropped and mosaiced maps IV and VII to create a map headed *Französisch-turkischer Conflikt Mytilini-Smyrna*. It is presented as "Aus H. KIEPERT Specialkarte vom westlichen Kleinasien in 15 Blatt," and maintains *SpecK*'s 1:250,000 scale. [**Fig. 5**] No date is stated, although according to Reimer's 1905 *Verlags-Katalog* (p. 36) it was 1901.[19] This map spans the Gulf of Adramyti to Smyrna, but also includes a grayscale inset of Greece and the Aegean at 1:5,000,000, and within that an enlargement of Constantinople and the Bosporus. Otherwise *SpecK*'s palette is retained except for red (used on *SpecK* only to highlight certain routes).

[19] If Reimer issued any text to accompany the map, I have yet to find a copy.

The map was designed to direct attention mainly to the sea, with particular reference to the seizure and occupation of Mytilini and its harbor (on Lesbos) by a French naval squadron for six days during November 1901. This move marked the climax of the so-called Lorando-Tubini affair, a primarily diplomatic struggle between spring and fall that year arising from the Ottoman authorities' refusal to repay debts to two Levantine financiers who had French citizenship.[20]

The undated, and perhaps partial, revision of *SpecK* names no publisher. It can hardly have been produced much before 1912, because two railroad extensions only opened that year are shown (see further below): one on V proceeds north from Soma through Balikesri and thence to Panderma, the other on IX proceeds south from Dinêr. Only six such revised maps have so far been found (IV through IX), so there is no knowing how many more of the original 15 underwent this revision. Reimer at least assisted it presumably, because the maps appear to be reprints of the original ones, although lacking color except blue for open water on IV and VII; those (black) roads originally overprinted in red are now black only. A title is added to each map, as well as labels in the margins bearing the titles and numbers of adjoining maps.[21] Awareness of the map-titles marked on the 1890 Übersichtsblatt seems evident, but in fact none is adopted without at least minimal alteration. Altogether, without further clues it is at present impossible to determine who produced this anonymous undated edition so economically, and with what purposes and users in mind. [**Fig. 6a**, **b**]

Revised *SpecK* maps so far found:[22]

IV Kalé-Sultanié
V Balikeskri
VI Biledjik-Eskishehir
VII Smyrne
VIII Alashehir
IX Karahissar

3. Origins of *Karte von Kleinasien*: Heinrich and Richard Kiepert's Initiatives

In his initial 1890 text printed on the reverse of the Übersichtsblatt, Heinrich introduced *SpecK* as the larger-scale (1:250,000) component of

[20] See, for example, Shorrock (1976) 23–32.

[21] See below for the addition of similar labels to *KvK* maps from (it seems) 1913.

[22] *Forgotten* V.40.

a series of 24 maps, the remainder of which — covering central and eastern Asia Minor at 1:500,000 — it was his intention to publish the following year (1891). This series with its two scales had been his plan since around 1880, as noted above.[23] However, it cannot have been long after 1890 that he changed his mind in favor of producing a series that would cover Asia Minor at 1:400,000 in (again) 24 maps extending as far east as long. 42 30.[24] Nothing survives to shed light on the timing of this decision or the reasons for it. Without doubt, a uniform scale had strong attraction. Conceivably, Heinrich had come to think that by now Asia Minor's center and east were well enough known to justify a modest increase in scale there, while in the west the relative emptiness of several of his 1:250,000 maps perhaps made this scale seem prematurely generous.[25] Hence, on balance, 1:400,000 emerged as the best compromise for achieving uniformity. In any event, by around 1895 at the latest the new series at this scale had been completed in manuscript (which remained in Berlin), while a copy was made and sent to Carl Humann in Smyrna for comment, as Walther Ruge reports.[26] Then Humann died in 1896, and Heinrich three years later (April 1899), with no map in his 1:400,000 set yet published.

For developments following Heinrich's death, the sole testimony is the account in Reimer's brochure dated October 1901, one which in its eagerness to promote *KvK* is prone to sacrifice accuracy, especially with reference to Richard's role. The anonymous writer claims that "the work had to [re]start from the very beginning," prompting Richard's "complete new construction of the map of Asia Minor (1:400,000) in October 1899." A pair of reasons supposedly made this drastic step necessary. First, because Heinrich could rely on his superb memory, he neglected to leave any written documentation about the value of the extensive source materials. Second, many new sources produced during the previous ten to fifteen years had now to be taken into account for the first time. The maps by Heinrich to which the writer makes particular reference are

[23] For use of the smaller scale, compare the later series of four 1:500,000 maps by Heinrich's admirer, Walther von Diest: see Appendix, s.v., and *Forgotten* V.41.

[24] Nimrud Dagh and Bitlis lie within this frame (both on CVI) therefore, though not Lake Van at all. Classicists no doubt welcomed the modest bleed extending DVI to include Singara, while regretting that AVI's coverage ends just south of the Phasis river. Note that on AI and AII European territory is left blank but for its coastal fringes.

[25] A perception later shared by Guillaume de Jerphanion (1909) 368: "… sans vouloir diminuer en rien le mérite de la *Spezialkarte*, nous devons bien reconnaître que les noms y sont, en général, clairsemés et que les lacunes, dans certaines feuilles, occupent une place trop considérable."

[26] Ruge (1897) 461, another forgotten contribution.

SpecK together with those at 1:500,000 drafted during the 1880s but never completed and published.

However, Heinrich's more recent 1:400,000 draft of Asia Minor in its entirety completed by around 1895 goes unmentioned. Not only is this omission egregious, but it also misleads readers into assuming that Richard in 1899 (rather than Heinrich earlier) took the decision to change to this scale from 1:500,000. Equally, the brochure's writer ignores the fact that Heinrich continued to produce maps commissioned by travelers of their routes in Asia Minor almost to the end of his life. Indeed, his 1:500,000 map of journeys (primarily in Lydia) made between 1888 and 1895 by his friend Karl Buresch (died 1896) was published in 1898, as was another of journeys in Cappadocia by Ernest Chantre [**Figs. 31**, **32**]. That same year too, it was Heinrich who presented to the Royal Prussian Academy the published record of the journeys made through north-west Asia Minor by Walther Judeich in 1896–1897. Altogether, during the 1890s Heinrich was by no means as out of touch with fresh information about Asia Minor as the brochure writer represents.[27]

Nor, at the same time, was Richard for his part as unfamiliar as claimed with the varying reliability of data recorded by travelers there. Such variation was in any case a general problem for mapping other areas of the world on which he was an expert (above all Africa and China), just as much as it was for Asia Minor. Here he gained expertise on the south-east during the 1890s through constructing one 1:300,000 map for Friedrich Sarre [**Fig. 55**] and two 1:850,000 maps for Max von Oppenheim [**Fig. 46a**, **b**]. He accompanied the latter pair with highly detailed Begleitworte, demonstrating a thorough, perceptive grasp of relevant earlier mapping initiatives, which included many contributions (in manuscript and print) by Heinrich.[28]

So it may be more accurate to imagine that, once Heinrich had died (April 1899), Reimer's long frustrated management now encouraged Richard to complete his father's interminably delayed mapping of Asia Minor in its entirety at last, a project upon which time and resources had been lavished for the past two decades and more. By good fortune, Heinrich himself had finished his 1:400,000 draft relatively recently, and use of it would accelerate progress. Without question, this draft remained

[27] See entries in the Appendix, ss. vv. Note further the text — issued in German and English — that Heinrich wrote to accompany his *Formae Orbis Antiqui (FOA)* IX: *Asia Provincia* (1894), where (p. 1) he is most concerned to draw attention to discoveries made since the publication of *SpecK* four years earlier.

[28] Especially valuable for Richard's purpose among Heinrich's print contributions was the text written to accompany his maps made for Carl Humann and Otto Puchstein: see **Figs. 48–50**.

far from perfect, and new findings would need to be taken into account as always, but for Richard and for Reimer's management these concerns no longer sufficed to rule out proceeding to publication.[29] From a broader perspective too, it would hardly make sense to spend excessive further time on improving *KvK* when Heinrich had left several other uncompleted projects, all of which both Richard and Reimer were keen to bring to publication likewise.[30] Doubtless as a token of gratitude, Reimer evidently did not overrule *KvK* being credited to Richard alone, rather than to Heinrich and him jointly.[31]

In the Begleitworte accompanying the first of *SpecK*'s three Lieferungen, Heinrich's wide-ranging account of his sources — mostly unpublished, as the set's subtitle emphasizes — demonstrates the dedication with which he constructed the maps (see further below). Similarly, in the Begleitworte to the second and third Lieferungen he specifies correction of even the smallest details in maps already issued: change the spelling of Agrilia on Imbros (map I) to Agridia, for example.[32] Given such conscientiousness and Heinrich's many other preoccupations during the 1890s, his continued reluctance to begin issuing any of the 1:400,000 maps is no surprise. Only after his death could others take this bold step, although by then it would not be practical to issue more than the maps themselves. Accompanying accounts of their sources in Begleitworte (to match those written for *SpecK*) would be lacking, because Heinrich died before drafting any. The lack of this important explanatory component is what the brochure writer seeks to convey obliquely when referring to Heinrich's superb memory. Along routes, *KvK* maps did retain the abbreviated names of the one or more travelers marked there — by Heinrich, surely — to acknowledge them as informants. Also retained below each map was a list of these abbreviations with the corresponding full surnames. Beyond this bare minimum, however, no further guidance was offered, even though in many instances some would have been essential should a

[29] Richard's discussion dated March 1908 of his mapping work for Richard Leonhard's *Paphlagonia* — a book in fact not published until 1915 — refers (p. 162) to "Heinrich Kiepert's earlier unedited manuscript" of what became *KvK* AIV, where Heinrich's placement of Kastamuni was retained (see further below).

[30] For these projects, see Talbert (2019) 75–77.

[31] Note, however, that in Reimer's 1905 *Verlags-Katalog* the listing for *KvK* appears under Heinrich's name (p. 34), although with "Bearbeitet von Dr. R. Kiepert" added. By contrast, the exhibition and accompanying volume to celebrate Heinrich's achievements on the centenary of his death overlook *KvK* altogether — see Zögner (1999) 25, 179, for example — and hence also its longterm impact.

[32] Note that *KvK* BI (1906) follows the corrected spelling. Even in the Begleitworte to *SpecK*'s first Lieferung (p. 7) Heinrich draws attention to a similar slip on an accompanying map (VII) which had gone to press!

map's users wish to consult the traveler's contribution (if it was accessible). Many of those listed were by no means contemporary, and many were not widely known. In short, Richard persevered to bring *KvK* to publication, although at the cost of leaving it seriously incomplete by comparison with *SpecK*, because no Begleitworte ever accompanied *KvK*'s maps beyond the brief launch brochure. Even so, unless *KvK* were to be permanently shelved, Richard was left with no other practical way forward.[33]

4. *Karte von Kleinasien*

Assuming Richard really did begin work in October 1899 (as the brochure states), rapid progress followed. According to the writer, more than ten maps covering central and south-east Asia Minor had been redrawn by October 1901 (the brochure's date). Five of these were said to be already in print (AIV, BIV, CIII, CIV, DIII),[34] with three more to follow soon (AV, BV, DIV). Certainly, the eight maps just specified were all published in 1901–1902, together with CV and DV, although the dates must be gleaned from elsewhere,[35] because only during 1904 do maps start to carry a date (all are dated thereafter).

Thus the brochure's total of "more than ten" maps redrawn by October 1901 appears to be an exaggeration, just as its estimate of three to four years for completion of all 24 is unrealistically optimistic. The undated title-sheet AI — possibly not issued until 1905 at the earliest[36] — states the span for the appearance of the entire series to be 1902–1906, and this latter year for completion is also the expectation of Reimer's 1905 *Verlags-Katalog* (p. 34). In the event, however, the last three maps were not issued until 1907. So completion of the 24-map set took six years

[33] For whatever reason, the brochure omits to draw attention to the value of Richard's Begleitworte for his maps in von Oppenheim's two volumes (1899–1900), highly relevant though they are to *KvK*'s coverage of the south-east.

[34] The 1929 brochure (see below) adds that BIV and AIV were the first two to be produced.

[35] References in either *Bollettino della Società Geografica Italiana* 6.1 (1905) 1022 (in "Bibliografia 1902"), or *International Catalogue of Scientific Literature* 3 (June 1905) 263.

[36] An inference from two observations: first, engraving of the landscape hachuring is credited to F. Klimesch, who otherwise is named only on *KvK* maps issued from 1904 onwards (see further below); second, Reimer's 1905 *Verlags-Katalog* (p. 34) does not include AI in its listing of *KvK* maps issued. In recording when the maps were issued, Martin Hartmann states 1905 for AI, but it is as well to keep in mind that his dates are not invariably reliable: see Hartmann (1909) 276.

altogether (1901–1907).[37] One major cause of delayed completion was conceivably the unavoidable slowness of copper-plate engraving (see further below). For certain, from the outset Reimer affirmed the highest estimation of *KvK*'s value, as well as funding production of top-quality maps for it by opting to have them engraved rather than lithographed (as Heinrich's *SpecK* had been).[38] But still it would have taken engravers several months to deliver the initial five maps by October 1901, and it is understandable that, after a further five were published in 1902, none appeared in 1903.

Even though the brochure's writer expected the maps of east and north-east Asia Minor to need longer preparation-time than those of the west, in fact the next maps to appear (in 1904) were four of the east (AVI, BVI, CVI, DVI) and only one of the west (DI). Thereafter, with eight maps outstanding, in each of the following three years only two (1906) or three (1905, 1907) were published, all of them western except one (BIII). To issue the set in this order suggests shrewd marketing strategy on Reimer's part, insofar as it stretched out — to fifteen years or so — the period for which *SpecK*'s 15 maps at 1:250,000 would remain unmatched by the seven *KvK* maps with corresponding coverage.[39]

With the exception of the largely blank title sheet AI, each map appeared subsequently in at least one further edition, although that term is used only after 1907 once all 24 maps had been issued. Second edition maps began to appear from 1910 — with one earlier, in 1908, for a special reason (see below) — and were all issued by 1915. They are described in several ways, and there were possibly even more variant wordings than have been identified to date. A few maps are stated to be merely "Zweite Ausgabe," but there can also be a "Zweite berichtigte Ausgabe," even in the same year as with CI and CV. AII has a "Zweite berichtigte Ausgabe" twice (in successive years). So does BI three years apart (1912, 1915), but in the latter of those years it *also* has a "Zweite Ausgabe." DIV is another exceptional case: its "Zweite Auflage" (1910) is followed by "1910. (Zweite Auflage.) Dritte Ausgabe mit Nachträgen 1911," and then by "Dritte berichtigte Ausgabe" also in 1911. More generally, however, it would seem that in the case of most maps the "Zweite berichtigte Ausgabe" was the

[37] Walther von Diest (1910) 440 records these six years correctly.

[38] Heinrich had shared the widely held opinion that engraving was superior to all other means of reproduction for maps: see Espenhorst (2008) 783; more generally, Talbert (2019) 20–48 and index, s.v. However, for *SpecK* Heinrich probably declined to tolerate the delay that engraving would entail. Hartmann (1909) 279 had no complaint to make about the price charged for *KvK*, and he may well be right to reckon that Reimer produced it at a loss.

[39] AII (and I notionally); BI, II; CI, II; DI, II.

only second edition, with no "Zweite Ausgabe" before or after. The same presumption holds for the three third editions issued in 1914–1915 as well as, finally, for the single fourth edition issued posthumously in 1916 following Richard's death the previous year.[40]

For the reissue of the set in March 1929, the two pages of text in the original October 1901 brochure were revised, although only lightly [**Fig. 7a**, **b**]. Neither in 1929 nor at any time after 1916 did Reimer publish any *KvK* map identified as a further edition, but partially revised second editions of DV and DVI (with the original dates 1911 and 1914 respectively unchanged) did appear, perhaps for the 1929 reissue. Also now added in the margins of both were the titles of their adjoining maps. This addition was made for the rest of the series too (except AI, and AVI evidently), either when a map's latest known edition was produced (AII, BII, for example), or when a map was reissued (in 1929 ?) with no change to its edition or date, like DV and DVI (and seemingly AIII, BVI, CII, CIII, CIV, DII, DIII).

Maps, Editions, Dates

All 24 *KvK* maps — at 1:400,000 scale, oriented north — are presented on sheets of uniform size (59 cm tall x 69).[41] During the first decade, the color palette is economical, with brown and blue the only tints, the former for elevations, the latter for open water (and deepened to highlight coastlines), but not for water courses. Subsequently, from 1911, a green tint — for valleys and plains — is added to every map, and the brown may be lightened. For reference purposes, the rectangle formed by the 24 maps' overall coverage is divided horizontally into four rows lettered A (top) to D (bottom) and vertically into six rows numbered (Roman) I to VI from left to right. This lettering-numbering is to be found on the locator index map accompanying the brochure in 1901 [**Fig. 8**] and 1929, as well as on another (revised, simplified) such locator first issued in 1908. [**Fig. 9**] On a map, its letter and number appear next to the title which each carries (a center of importance in every instance). For the graticule, lines are drawn at half-degree intervals, with Greenwich the sole prime meridian. No letters or numbers for referencing locations are

[40] Where a map has both, it seems that "Zweite Ausgabe" could (counterintuitively) follow "Zweite berichtigte Ausgabe" rather than precede it, as with CI in 1911. Its "Zweite berichtigte Ausgabe" that year credits Oswald Melching for the linework (bottom right), as had its original edition; but then in its "Zweite Auflage" (also 1911) Melching's name is shifted to bottom left so that he may share credit there with Richard Kiepert.

[41] *Forgotten* I.7.

placed in any margin. From 1913 or possibly earlier, labels bearing the titles of adjoining maps are added in the margins of all maps except AI and AVI (noted below as "margin labels").

This list states where a copy may be found when it is essential to distinguish a map's editions (identical copies may of course be held elsewhere too).

AI Titelblatt [no name], probably issued in 1905 or 1906 (see above). Reissued (no earlier than 1911 ?) with green tint added, but otherwise unchanged (so the dates stated for the series remain 1902–1906)

AII *Constantinopel* ed. 1=1906, ed. 2 berichtigte=1912 [NYPL], further ed. 2 berichtigte with margin labels=1913 [Stanford]

AIII *Zafaranboli* 1=1907, 2 berichtigte=1914 [Princeton]; also issued without edition or date stated, but with green tint and margin labels (so not ed. 1) [Stanford]

AIV *Sinob* 1=1901 [undated; see brochure], 2 only=1908 [NYPL], 3 berichtigte with margin labels=1914 [LOC, Stanford][42]

AV *Ünije* 1=1902 [undated; see BSGI], 2 berichtigte=1913 [Princeton], 3 berichtigte with margin labels=1915 [LOC, Stanford]

AVI *Tirabzon* 1=1904 [undated; see ICSL], 2 berichtigte=1913

BI *Aivalyk* 1=1906, 2 berichtigte=1912 [LOC], 2 only=1915 [Princeton], further 2 berichtigte with margin labels=1915 [Stanford]

BII *Brussa* 1=1907, 2 berichtigte=1912 [LOC], further 2 berichtigte with margin labels=1914 [LOC, Stanford]

BIII *Angora* 1=1907, 2 berichtigte with margin labels=1914

BIV *Jozgad* 1=1901 [undated; see brochure], 2 berichtigte with margin labels=1914

BV *Sivas* 1=1902 [undated; see BSGI], 2 berichtigte=1912 [NYPL], 3 berichtigte with margin labels=1915 [LOC, Stanford]

BVI *Erzerum* 1=1904, 2 berichtigte=1913, 2 berichtigte with margin labels=1913 [Stanford]

CI *Smyrna* 1=1905, 2 only with margin labels=1911 [Stanford], 2 berichtigte=1911 [NYPL] (see note 40 above)

CII *Afiun Karahisar* 1=1905, 2 berichtigte=1912, 2 berichtigte with margin labels=1912 [Stanford]

[42] According to *Gesamtverzeichnis des deutschsprachigen Schrifttums 1911–1965*, this map also appeared in 1915, but that date is perhaps a slip; a copy so dated has yet to be found.

CIII *Konia* 1=1901 [undated; see brochure], 2 berichtigte=1912, 2 berichtigte with margin labels=1912 [Stanford]
CIV *Kaisarije* 1=1901 [undated; see brochure], 2 berichtigte=1911, 2 berichtigte with margin labels=1911 [Stanford]
CV *Malatja* 1=1902 [undated; see BSGI], 2 only with margin labels=1913 [Stanford], 2 berichtigte=1913 [Princeton]
CVI *Diarbekir* 1=1904, 2 berichtigte with margin labels=1914
DI *Budrúm* 1=1904, 2 berichtigte with margin labels=1915
DII *Adalia* 1=1905, 2 berichtigte=1914, 2 berichtigte with margin labels=1914 [Stanford]
DIII *Ermenek* 1=1901 [undated; see brochure], 2 berichtigte=1914, 2 berichtigte with margin labels=1914 [Stanford]
DIV *Adana* 1=1902 [undated; see BSGI], 2 only=1910 [NYPL], 2 only/3 mit Nachträgen=1911 [British Library] [**Fig. 10**], 3 berichtigte=1911 [NYPL], 4 berichtigte with margin labels=1916 [Stanford]
DV *Haleb* 1=1902 [undated; see BSGI], 2 berichtigte=1911 [LOC], 2 berichtigte with updates and margin labels=1911 [Stanford]
DVI *Nsêbîn* 1=1904 [undated; see ICSL], 2 berichtigte=1914 [LOC], 2 berichtigte with updates and margin labels=1914 [Stanford]

Publication by year and edition to 1916 (excluding AI):

1901 AIV (ed. 1), BIV (1), CIII (1), CIV (1), DIII (1)
1902 AV (1), BV (1), CV (1), DIV (1), DV (1)
1903 none
1904 AVI (1), BVI (1), CVI (1), DI (1), DVI (1)
1905 CI (1), CII (1), DII (1)
1906 AII (1), BI (1)
1907 AIII (1), BII (1), BIII (1)
1908 AIV (2)
1909 none
1910 DIV (2)
1911 CI (2 twice), CIV (2), DIV (2/3), DIV (3), DV (2)
1912 AII (2), BI (2), BII (2), BV (2), CII (2), CIII (2)
1913 AII (2 again), AV (2), AVI (2), BVI (2), CV (2 twice)
1914 AIII (2), AIV (3), BII (2 again), BIII (2), BIV (2), CVI (2), DII (2), DIII (2), DVI (2)
1915 AV (3), BI (2 twice more), BV (3), DI (2)
1916 DIV (4).

Number of years between the appearance of maps' first editions and their (initial) second editions:

5 years: BII
6: AII, BI, CI
7: AIII, AIV, BIII, CII
8: DIV
9: AVI, BVI, DII, DV
10: BV, CIV, CVI, DVI
11: AV, CIII, CV, DI
13: BIV, DIII

Credits for "Construction" and Engraving

Bottom left of each map's frame, its "construction" (the identical noun in German and English) is credited to Richard Kiepert; in some instances the participle "gezeichnet" is substituted. Often he alone is credited; otherwise either K. Werner or Oswald Melching share the credit with him (where no change is noted, there is none from one edition to the next):

Kiepert alone: AI, AII (ed. 1, ed. 2 1912, but *not* 1913), AIII (ed. 1), AIV (ed. 2, now without Werner; for ed. 3 Melching is added), AV (ed. 2, now without Werner; for ed. 3 Melching is added), BI, BII, BIII, CI (ed. 1, ed. 2 berichtigte, but *not* 2 only), CII, DII (ed 1), DIV (eds. 2, 2/3, 3; Werner is dropped after ed. 1, and Melching added for ed. 4)

Kiepert and Melching: AII (ed. 2 *1913* only), AIII (ed. 2), AIV (ed. 3), AV (ed. 3), BIV (ed. 2, Melching replaces Werner), BV (eds. 2 and 3, Melching replaces Werner), CI (ed. 2 only, but *not* 2 berichtige), CV (both eds. 2, Melching replaces Werner), CVI (ed. 2, Melching replaces Werner), DII (ed. 2), DIII (ed. 2, Melching replaces Werner), DIV (ed. 4); DVI (ed. 2, Melching replaces Werner)

Kiepert and Werner: AIV (ed. 1), AV (ed. 1), AVI, BIV (ed. 1), BV (ed. 1), BVI, CIII, CIV, CV, CVI (ed. 1 only), DI, DIII (ed. 1), DIV (ed. 1), DV, DVI (ed. 1).

When account is taken of both dates and names, it emerges that Richard and Werner share the credit for construction of all 15 first-edition maps produced between 1901 and 1904. Thereafter, however, Werner ceases to be a partner, and is not replaced in that capacity. Hence for the remaining eight first-edition maps (produced between 1905 and 1907) the credit is Richard's alone (as also for AI). As it turns out, Werner's name is retained

for no more than six second-edition maps (BVI, CIII, CIV, CV, DI, DV). It is dropped for the second edition of seven others: AIV, AV, BIV, BV, CVI, DIII, DVI.

From 1911 Richard may again share credit, now with Melching, who is first named on one of the two second-edition issues of CI in 1911, on BV's second edition in 1912, on AII's in 1913, and then on ten further revisions between 1914 and 1916. In numerous instances (see above), his name is now substituted for that of Werner; in others it is added to Richard's. Such expansion of Melching's involvement no doubt reflects his talents and increasing experience, as well as the deterioration of Richard's health, his eyesight especially.[43] Earlier, Melching was credited for engraving the linework on eight maps issued between 1905 and 1907 (see below), and that credit is retained in four instances when the second editions are issued. However, from 1911 onwards Melching is increasingly recognized instead for contributing to maps' construction alongside Richard (and never for *both* engraving *and* construction). For DIV's fourth edition in 1916 his name is added alongside Richard's, and he must have assumed sole responsibility.[44]

Bottom right of each map's frame, the two or three engravers who prepared it for printing are credited (if no change is noted below, there is none from one edition to the next). How many copperplates were engraved for each map is nowhere specified, but four seem likely, the number known to have been engraved during the early 20th century for maps in the tenth edition of *Stieler's Handatlas* published by Perthes at Gotha: one plate for shore and watercourse linework; a second plate for route linework (including railroads and boundaries) and point-symbols; a third plate for landscape elevation hachures ("Terrain"); and a fourth plate for names.[45] The likelihood of four such plates for *KvK* too is reinforced by the perception that on second or later editions of its maps (even ones where minimal change has been made) the placement of names may still have undergone a very slight shift in relation to linework or symbols, because the plates were not aligned on press exactly as for the first edition. Observe, for example, the rightward shift of the names GIZENICA and Supanoi on the second (1913) edition of AVI compared

[43] Evidently by 1913 he had to abandon map work altogether: see the obituary by Josef Partsch (1915) 531.

[44] Richard died in August 1915. Later, in 1921, even though the impressive 1:500,000 *ΓΕΩΓΡΑΦΙΚΟΣ ΧΑΡΤΗΣ ΤΗΣ ΝΕΑΣ ΕΛΛΑΔΟΣ* was jointly credited to Richard and himself, Melching must again have taken sole responsibility; see further Talbert (2022) 199 and Fig. 20a, b; *Forgotten* III.20.

[45] See in brief Espenhorst (2003) 279–81 and Illus. 2.68. For further detail, Haack (1923), reprinted in id. (1972) 132–45, with Tafel 2.

with its first (1904). [**Fig. 11a**, **b**] For printing each color, a stone lithographic plate was made either by drawing on the stone with a crayon or by incising it lightly.[46]

Engraver of linework ("[Rein]zeichnung") — that is, possibly of the first two copperplates as proposed immediately above:

> Melching: AII (ed. 1, ed. 2 1912; however, for ed. 2 1913 he instead shares credit with Richard for the map's construction), AIII (ed. 1; however, for ed. 2 his name is added to Richard's with credit for "Zeichnung"), BI, BII, BIII, CI (ed. 1, ed. 2 berichtigte; however, for this map's other ed. 2 he instead shares credit with Richard for its construction), CII, DII (ed. 1; however, for ed. 2 he instead shares credit with Richard for the map's construction),

Engraver — that is, presumably always of names (fourth plate above), and also of linework except where this is credited to Melching; however, never of "Terrain" (third plate above):

J. Arnold: DV
W. Eichhoff: AIV, BIV (ed. 1), CIV
M. Hillmann: AV
C. Hirte: DVI
R. Serbeck: AI, AII, AIII, AVI, BI, BII, BIII, BIV (ed. 2), BV, BVI, CI, CII, CIII, CV, CVI, DI, DII, DIII, DIV.

Engraver of "Terrain" (landscape elevation hachures, third plate above):

F. Klimesch: AI, AII, AIII, BI, BII, BIII, BIV (ed. 2), BVI, CI, CII, DII
H. Mützell: CVI, DI
J. Sulzer: AIV, AV, AVI, BIV (ed. 1), BV, CIII, CIV, CV, DIII, DIV, DV, DVI.

Given the taxing demands of the process and the need in each case for the engravers to co-ordinate their work, Serbeck's productivity is remarkable,[47] not to say incredible unless really his one name serves to credit a small team engraving under his supervision. As it is, over the six years in

[46] For the process, see Espenhorst (2003) 48–51. As he warns, references to the light incision of the stone plate as "engraving" can create confusion with copperplate engraving, where of course the surface is different and more deeply incised.

[47] For engravers' productivity in general, see Espenhorst (2003) 41–43.

which the first-edition maps were issued, he receives credit for two maps issued in 1901 and two in 1906, for three in each of the years 1902, 1905 and 1907, and for four in 1904 after none had appeared in 1903 (also for AI). J. Sulzer too was very productive, earning credit for the "Terrain" on five maps issued in 1901 and five more in 1902.[48] Together with Melching and Klimesch (who engraved the "Terrain" on ten maps from 1904 onwards as well as on AI), from the start in 1901 Serbeck and Sulzer engraved the great majority of the maps.[49] Five other engravers (including one for "Terrain") were credited between 1901 and 1904, but for just eight maps in all.

Only a single map, BIV, was engraved wholly afresh for its second edition (1914), and in fact not by the original two engravers (in 1901) but by two others. It was one of the first two maps to be produced, as well as one of the two with the longest interval (thirteen years) between its first and second editions. On maps other than BIV, no indication is given of whether the revisions for second and subsequent editions were made by the original engravers or by others.

5. "Construction": *Specialkarte*

Appropriately, the maps' construction is the principal theme of Heinrich's Begleitworte written to accompany the first Lieferung, issued in April 1890.[50] Here he gratefully acknowledges the previous half-century's marked increase in reported data of value to cartographers. Yet he is also frank about *SpecK*'s unavoidable limitations. In particular, there had been almost no triangulated surveying within the scope of its coverage, and reliably accurate figures for measurements of co-ordinates, heights and depths, as well as of distances on the ground, all remained rare. As a result, therefore:

> It has only been possible to produce a map that is still very patchy, and far removed from a complete picture of the country. Even the sheets that have now been issued first, even though they contain the areas near the much traveled coasts, have some large empty spaces in the absence of any information, and their extent increases considerably in the more remote interior landscapes that have not been visited at all, or only

[48] In addition, J. and R. Sulzer lithographed the two *FOA* maps issued in 1901.

[49] Note that similarly Serbeck, either alone or in partnership with Klimesch, receives credit for engraving the great majority of the *FOA* maps issued between 1906 and 1914.

[50] For construction in general, see Espenhorst (2003) 39–41; more fully, and with specific reference to Asia Minor, Débarre (2016) 99–138, 183–260.

> fleetingly by travelers who have given far from accurate reports (such as Lebas, Mordtmann, Tchihatcheff). Owing to its relatively large scale, the current map will make it easier to recognize such raw gaps in our knowledge of this ancient land of culture than [is possible from] much reduced overview maps which indicate only its general shape. Hence [this map] will show future scholarly visitors to the country more precisely the desired locations for further exploration.[51]

Reliable coordinates for locations were so rare that Heinrich records his thanks for being notified privately of eleven as yet unpublished latitude measurements made by Arthur [Hamilton] Smith in 1884 (p. 3). Travelers' longitude measurements were notoriously inaccurate, and so were to be regarded as no more than approximations at best (p. 4). However, Heinrich did have confidence in the various measurements taken by surveyors for railroads, and it was these lines (some already built, others not yet) that he therefore made the framework for his mapping of inland regions; he also trusted mining engineers' measurements. That said, it is all the more puzzling — especially in view of Heinrich's contacts with SCP chief engineer Möllhausen[52] — that on VIII this company's line built north-east from Smyrna through Maghnisa still terminates at Alashehir, even though it had been extended to Ushak in December 1887 and thence to Afiûn Karahissâr in 1890. On IX too (dated 1891), neither extension is shown.[53]

For coastlines and their adjacent areas Heinrich mainly relied upon the British Admiralty's charts.[54] Recorded spot-heights were so prone to

[51] *SpecK* (1890) 6: "… konnte freilich immer erst eine noch sehr lückenhafte, von einem geschlossenen Gesammtbilde des Landes weit entfernte Karte hergestellt werden. Selbst die jetzt zuerst ausgegebenen, obwohl den verkehrsreichen Küsten nahegelegene Strecken enthaltenden Blätter zeigen schon einzelne gröfsere, in Ermangelung jeder Nachricht leer gelassene Räume, deren Umfang in abgelegneren, noch gar nicht oder nur von flüchtigen, wenig genau berichtenden Reisenden (wie Lebas, Mordtmann, Tchihatcheff) durchstreiften Binnenlandschaften noch erheblich anwächst. Solche empfindliche Lücken unseres geographischen Wissens von diesem uralten Culturlande wird vorliegende Karte eben durch die verhältnismäfsige Gröfse ihres Mafsstabes deutlicher erkennen lassen, als stark reducierte, nur die allgemeinen Formen andeutende Übersichtskarten; sie wird damit künftigen wissenschaftlichen Besuchern des Landes die erwünschten Plätze neuer Entdeckungsthätigkeit bestimmter nachweisen."

[52] See Appendix, s.v.

[53] The revised *SpecK* VIII and IX add both these SCP extensions.

[54] Note, however, on X the (uncontentious) naming of a bay south-east of Miletos "Basilicus" followed by double exclamation marks and "Engl. Chart": there is no knowing the reason for such special marking on Heinrich's part. The Admiralty Chart referred to must be 1546 *Samos Strait to Mandelyah Gulf*.

differ that he took pains to state his sources for those shown (always in metres). Thus a figure followed by an initial letter or the start of a name is one calculated by an individual (**Table 1**); one without any accompanying indication is Heinrich's own calculation or that of his associate in 1886, Ernst Fabricius. "S. Ch." denotes a figure taken from a naval chart; one underlined the calculation of a rail or road engineer; square brackets that of English observers (as communicated by William Ramsay), and round brackets an estimate made without the use of any instrument.[55]

In short, *SpecK* had to be created largely from travelers' records of uneven character and quality, most of them (according to the subtitle) unpublished. As the Begleitworte to the first Lieferung explain, Heinrich highlighted in red routes traversed by himself and (in 1886) by his associate Fabricius,[56] regarding all these too as part of his framework. He also valued data gained from such expert travelers as Walther von Diest, Carl Humann and Ramsay,[57] especially if he had already fulfilled commissions to produce maps from their reports, as he had done during the 1880s for John Sterrett [**Figs. 57–60**], as well as for Otto Benndorf, Georg Niemann and colleagues [**Fig. 28a**, **b**].[58] By contrast, many other travelers' records and sketch-maps Heinrich criticized — harshly in certain instances — for inaccuracy, lack of topographical detail and further shortcomings. In consequence, he typically limited his reliance on them to areas for which any report from a more informative and trustworthy source was lacking.

By his own account in the Begleitworte to the first Lieferung (p. 6), Heinrich took a similar approach to Turkish and Greek maps.[59] Somehow a Turkish military map — presumably unpublished, date not stated — had come to his attention, one with extensive coverage of central Asia Minor on 24 sheets at the same scale as *SpecK* (1:250,000). Although not drawn at all accurately in his opinion, this map was notable for its abundance of

[55] *SpecK* (1890) 8 and (1891) 2 elaborate. The hollow triangle locating a spot-height may also be marked with no accompanying figure, presumably to indicate at least the whereabouts of a peak.

[56] On I, IV, V, VII, VIII, XI.

[57] Note Ramsay's generosity in sharing measurements taken over five summers that greatly enhanced VI, XI and XII: *SpecK* (1891) 1.

[58] Heinrich states (ibid.) that *SpecK* XV reproduces — with minimal additions relating to antiquity — the relevant part of the map he had made for Benndorf and Niemann.

[59] *SpecK* (1890) 6. Note further his negative reaction to Turkish plans of roads, in particular ones upgraded in recent years to serve as highways (*chaussées*): ibid. 8; (November 1890) 1.

placenames, especially in areas not yet visited by Europeans, above all most of *SpecK* III and immediately further east on VI. A Greek map of the Brussa region at 1:500,000 scale published in 1883 by Vasileios Kandes was similarly valuable for the placenames it marked in areas of *SpecK* II and V which would otherwise remain blank [**Fig. 12**]. Heinrich yielded therefore to incorporating Turkish and Greek data, but still registered his cautious adoption of it by italicizing names taken from these sources, and by using a square, rather than round, point symbol for their placement. In addition, he explains, if a place could be located only very approximately, its name would not be accompanied by a symbol at all. More generally, if a village had just been seen in the distance by a traveler, without being visited or its name discovered, then it would be marked by a symbol alone. Also, uncertain names would be followed by a question mark, and uncertain locations likewise after the symbol. [**Fig. 13**]

In the brief text accompanying his 1892 index map of the administrative divisions of the provinces of the Ottoman empire within *SpecK*'s scope [**Fig. 3**], Heinrich again acknowledges his reliance upon placename-lists and maps obtained from the Ottoman authorities. Their shortcomings aside, he warns that more basic, insurmountable problems prevented an accurate rendering of administrative boundaries even at a small scale:

> It must be remembered that these boundaries do not at all run in precisely fixed lines, like those of European States, owing to the great extent of practically unclaimed areas (pasture-lands of nomad tribes, perfectly sterile rocky ground etc); and that besides, the exact position remains unknown of a considerable and sometimes largely preponderating number of the districts, which, up to the present, have neither been visited nor described by European travellers, and shown only in the fairly trustworthy, but rough native maps.[60]

A related concern to which Heinrich draws attention is the accurate rendering of Turkish placenames with a consistent orthography. This he considered an important goal to strive for, although by his own admission the degree of success attained in the struggle to achieve it fell far short of the time and energy he had expended (p. 7). Because most travelers were not fluent in Turkish, they were prone to distort names they heard, or they failed to recognize dialect forms. In addition, for all Heinrich's success in

[60] Cf. *SpecK* (1890) 8. The "rough native maps" referred to seem most likely to be those included in *salname*, "year-book" reports providing a range of statistical data issued periodically by Ottoman *vilayets* (administrative districts): see Duman (2000) with Débarre (2016) 308–309 and (for some examples) *Forgotten* V.32.

obtaining official placename-lists from the Ottoman authorities, these records of over 5,000 names then raised their own problems. Numerous slips were found in printed lists, while manuscript ones were written in tiny cursive, sometimes carelessly and thus only decipherable with expert help which Martin Hartmann and Bernhard Moritz provided.[61]

These principles and concerns presented in the Begleitworte accompanying the first Lieferung (April 1890) well expose the boldness and fragility of Heinrich's construction. His Begleitworte to the second (November 1890) and third (November 1891) Lieferungen illustrate both these characteristics even more starkly. By then, fresh material from the Ottoman authorities which Heinrich had long sought was at last in his possession, but only after costly arrangements had been made for a topographical draftsman to copy some manuscript items in Constantinople, and for others to be photographed. As a result, new *chaussées* needed to be added to several *SpecK* maps including II and VII already issued,[62] while XI — reckoned to have been ready for printing — now had to be remade afresh so that data could be added from a 1:200,000 map of the Aidin *vilayet*, unsatisfactorily drawn though it was. Meantime further challenges arose from the official name-lists already in hand, because it now emerged that many villages on this map or in travelers' reports were missing, while many listed could not be located.

Heinrich trusted useful measurements made in 1890 and 1891 by a new traveler, the Austrian geologist Gejza Bukowsky, and he was able to take these into account for IX, XI and XII, all in the third Lieferung. Before its release, however, fresh information from Ramsay caused him to doubt whether the placement of ancient Aizanoi (at Tchavdyrhissar) bottom left on VI (awaiting release in the third Lieferung) was accurate. His investigation of this doubt then stirred related doubts about points along routes extending far into VIII (already published in the second Lieferung) and IX (awaiting publication in the third). In consequence, a latitude calculation by Hamilton that Heinrich had trusted was now called into question, likewise one of longitude by Wrontschenko. Still worse, these doubts made it necessary to rely on reports by Lebas and Mordtmann, both of them generally inaccurate sources in Heinrich's

[61] Hartmann's continued help for *KvK* is recognized in its brochure, p. 2. Brief guidance on the pronunciation of transliterated Turkish is appended to every *KvK* map, as well as German translations of Turkish geographical terms. A further note about the pronunciation of Arabic names on DIV, DV and DVI appears on both editions of the two latter maps, and on DIV from its second edition.

[62] These, and other, additions and corrections Heinrich specifies to the best of his ability in the Begleitworte for the second Lieferung. For some on VII, see above with **Fig. 6a**, **b**.

estimation (as quoted above). He does at least conclude that Tchetikdji-Kiöi, already sited near top right on VIII, should be shifted eastwards to top left on IX, with the unwelcome result that it must appear twice on two adjoining *SpecK* maps. To be sure, in itself this duplication is no great slip, as Heinrich says defensively. What made it disturbing, however, is its emergence from a sequence of doubts that expose his inability to control an extremely diverse range of source materials.

6. "Construction": *Karte von Kleinasien*

Because originally — as seen above — Heinrich drew the maps both for *SpecK* and for what became *KvK* as components of a single project, all were constructed according to the same principles. Richard, however, could not match his father's deep knowledge to elaborate upon these and the sources used, as Heinrich had done for *SpecK*. Without question, to offer even brief assessments of *KvK*'s sources would have been a formidable task. Ancient ones are only named sparingly, and no list is provided of the abbreviations used for them.[63] Spot-heights are seldom credited, although likely to be when variant figures are recorded, as for the depth of Lake Göldjik (CVI, top left) and altitude of the Dünibelek pass (DIV, also top left). For routes by contrast, around half the maps name as many as 20 to 30 informants. Altogether there are over 200 of these, many named on just a single map or two: see the **Appendix** and **Table 2**. That said, the informants most often named would at least have been known already to users of *SpecK*, because they were individuals who had traveled in western Asia Minor (as well as further east) and are mentioned in Heinrich's Begleitworte for the first Lieferung.[64] Unlike *SpecK*, however, *KvK* places an informant's name — in parentheses, using initials or the start of a name — on a route stretch (normally above it), as had been Heinrich's practice on the maps he had produced for Sterrett in the 1880s [**Figs. 57–60**], for example, and for Rudolf Heberdey and Adolf Wilhelm in 1896 [**Fig. 38**].[65]

[63] Plin., Ptol., Strab., Xen. would no doubt all be widely recognized, but T. P. (AV, east of Ünije), St. Byz. (DI, Symi island), or Stad. (DII) surely less so; for Stad., see **Fig. 23a**, **b**.

[64] In particular, Ainsworth, Hamilton, Hirschfeld, Ramsay, Stewart, Tschihatschew, Wrontschenko.

[65] On the maps for Sterrett, travelers' names are written out in full; on the map for Heberdey and Wilhelm, the date(s) of their journeys (and of many others earlier) are added. On *KvK* it is uncommon for more than two travelers to be credited jointly on a route, but note an instance of four not far directly east from Angora (BIII). Uniquely,

So even though in general *KvK*'s launch brochure (October 1901) has the same purposes as *SpecK*'s Begleitworte, it addresses them far more briefly. Its listing of individuals whose unpublished plans and reports (grouped by region) were tapped is valuable,[66] and the wording of the last entry suggests that an informant in the British War Office had shared materials used to produce the (officially secret) 1:250,000 scale series *Eastern Turkey in Asia* (Intelligence Division War Office 1522). These British maps, with coverage from longitude 36 00 eastwards (extending much further than *KvK*), were issued between 1901 and 1904.[67] [**Fig. 14**] Among other maps mentioned as important acquisitions made too late for Heinrich to have taken into account, there is one — in manuscript, presumably — at 1:300,000 scale of Asia Minor in its entirety produced by the Ottoman ministry of commerce (*Handelsministerium*); this was supplied as a set of 40 to 50 photostats, often difficult to read. No more is said about it unfortunately, but on *KvK* names and locations taken from Turkish and Greek sources are again identifiable, because *SpecK*'s conventions to distinguish them are followed. Consequently, heavy reliance on such sources often stands out as, for example, on BV (ed. 1, 1902) south-east of Sivas, where it seems credible that data from the Handelministerium's map was used. By contrast, there is a patent lack of names (despite the larger scale) in the same area on IDWO 1522's map 8 *Sivas*, also issued in 1902. [**Fig. 15a**, **b**] Again, in all likelihood it was the Handelministerium's map, together with *salname* and other Ottoman sources, that enabled Richard to distinguish settlements' approximate population by as many as seven different sizes.[68]

In addition to individuals, four groups are credited as informants: English and Russian officers, engineers in Turkish (i.e. Ottoman state) service, and railroad engineers. In the first two of these instances, the intention is no doubt to maintain the anonymity of informants who shared data classified as secret. Engineers in Turkish service were all evidently responsible for roads, and not necessarily Turkish by origin:

the full names of three travelers (Kinneir, Leake, Olivier) are added along a route on DIII.

[66] Note also the expression of regret (p. 2) that it was as yet impossible to gain information about the itinerary taken by Waldemar Belck and Carl Lehmann-Haupt on their 18-month research expedition through the Caucasus, Persia, Mesopotamia and Armenia in 1898–1899. In fact the latter's record of the expedition, begun in 1910, would not be published in full until 1931; for his unusual career, see Angelica Kellner (2015).

[67] See Talbert (2022) 187–88 with *Forgotten* II.11.

[68] A key to the seven sizes — differentiated by use of all capitals, or capital and lower case letters in different type-sizes — appears on every map.

note, for example, P. Briot for one who is named. As the *KvK* brochure recognizes, Heinrich had already relied heavily on railroad surveys for *SpecK*, and this use is now expanded (with photographs moreover of the CIOB route), although to an extent far from uniform which is not explained. In particular, railroad survey lines are absent from AIII,[69] BIII and BIV — and so also the abbreviation "In." (railroad engineers) — but lines credited thus run all over CV and CVI, also DIV, DV, DVI.[70] Compare the 1914 overview by General Heinrich Imhoff [**Fig. 16**].

For all Richard's efforts, the inability to control diverse and often inadequate source materials persistently calls *KvK*'s accuracy into question, just as it did that of *SpecK*. In reflecting on CIII, one of the first maps to be issued (in 1901), Ramsay presents the problem forthrightly with reference to his own knowledge gained on the ground:[71] [**Fig. 17**]

> It is quite extraordinary how erroneous Kiepert's new large-scale map of Turkey is in this region; and it is difficult to describe the complication of error into which he has fallen. Two roads lead from Konia [north-east] over Boz-Dagh, one by Egri-Baiyat [*Egri Bajat*] and Mennek-Yaila [*Marnak Jaila*] and Zengijek to Suwerek; the other by Dibi-Delik [*Dibedelik Han*] to Obruk. Kiepert interpolates a third road midway between these two, places on it a second Egri-Baiyat [*Evri Bajat*] (he has the village fairly correct on the true road), and puts Mennek-Yaila on this non-existent road. I might go on for a column in this strain; but it is useless. The country has never been surveyed: Kiepert has only loose and careless notes of travellers to go upon, and often their descriptions are so inaccurate that they seem to be describing different roads when they have really been traversing all the same path. For every mistake in Kiepert's map there is a foundation in the carelessness (or, I should rather say, the deadly fatigue and weariness) of a traveller. The only wonder is that Kiepert has been able to make a map that is so good. I mention the seriousness of the mistakes not for the sake of fault-finding, but of warning.[72]

Guillaume de Jerphanion, in his uniquely long, detailed, authoritative review of *KvK*'s first edition, not only quotes this assessment by Ramsay,

[69] The projected CFOA line drawn from Adabazar through Hendek and onwards to the right margin of AII (ed. 1, 1906) was not continued even to Boli on AIII (ed. 1, 1907); later, it was removed from AII (ed. 2, 1912, 1913). See further below.

[70] n.b. *KvK*'s linework style for such survey lines is that for routes, not for railroads.

[71] Where Ramsay does not spell a name as on the map, its spelling there is added in italics.

[72] Ramsay (1906) 254.

but also articulates the same concerns. As a traveler and mapmaker himself, as well as year-round resident in Pontus (at Tokat) from 1903 to 1907, his knowledge gained on the ground extended into as many as ten *KvK* maps,[73] and thus gave him exceptional insight. Broadly speaking, the five source-types that he identifies for *KvK* correspond to those already noted for *SpecK*: British Admiralty charts for coastlines and adjacent areas; railroad engineers' surveys and plans (although railroad construction east of *SpecK*'s coverage, while advancing, was as yet not extensive there); reconnaissance reports from road engineers, both European and Ottoman; itineraries (some published, but not all) reported by European travelers as far back as the early 19th century;[74] and Greek and Turkish sources.

Jerphanion placed most confidence in the charts and the railroad surveys, and least in information from road engineers. From his own observations on the ground he could identify numerous instances of inaccurate road linework, misplaced villages, and names so garbled that the same village may be marked twice. Equally, he reports from autopsy that the lower of the two altitude figures for the Dünibelek pass (DIV, mentioned above) — a pair differing by over 500 metres! — must be the more or less accurate one.[75] However, it was "les itinéraires d'explorateurs" which he considered to be *KvK*'s real basis, and he complimented Richard for exploiting an unsurpassed mass of them — a tribute in effect to the remarkable range of international contacts developed by Heinrich over a lifetime. Yet Jerphanion then proceeded to illustrate at length the alarmingly variable quality of these records. The concerns just mentioned about misunderstood names recur, with recognition that both settlements and physical features (long rivers notably) were liable to be identified by more than one name. Jerphanion added that unavoidable reliance upon interpreters could lead to misunderstanding, and he reminded readers of the further obstacle that European languages adopted different conventions for transcription. "Il est difficile d'obtenir des montagnards les renseignements précis qu'on désire," he warns, and concludes: "les appellations géographiques n'ont rien de fixe en Asie Mineure."[76]

[73] Jerphanion (1909) 370 n. 2, and further below in Appendix, s.v.

[74] Leaving aside Guillaume-Antoine Olivier as a special case, Alexander Drummond (mid 18th century) is the only earlier traveler named: see Appendix, ss.vv. and **Figs. 34–35**. Since the 1850s Heinrich had not trusted distance figures reported in the 17th and 18th centuries: see Débarre (2016) 111.

[75] Even so, not until DIV's fourth edition (1916) were the higher figure and informant's name (Schaffer) removed.

[76] Jerphanion (1909) 373 n. 3; 374.

Moreover, as Jerphanion explains, itineraries by their very nature typically had to confine their coverage to a route and narrow strips on either side, so that the traveler's record either left the landscape beyond a blank or conjectured its character, in some instances far from correctly.[77] Just as problematic in Jerphanion's opinion was Richard's dependence on distance figures, many of them recorded decades earlier, and few measured by precision instruments, since there were next-to-none sufficiently reliable. Jerphanion did mention that John Anderson — in Pontus during 1899 — had attached "un taximètre" to a wheel of his baggage-cart,[78] but he omitted to add that Anderson soon found its accuracy compromised when a detour from the Tuzluburun to Tchorum road was required.[79]

Anderson had then resorted to the common expedient of recording the number of hours (about six) that the journey between these two places took,[80] but — needless to stress — for a cartographer to determine the distance from this type of estimate would hardly be conducive to accurate mapmaking. Such, however, were the constraints within which Richard and his team — like Heinrich before him — had to proceed if they were to produce any map at all of Asia Minor. Every traveler's measurements and records there were liable to be lacking in coverage and accuracy to a greater or lesser degree,[81] and when more than one record of a route or area was available, Richard's choice of which to trust had to be more subjective than objective. For CIII's representation of routes north and east from Konia faulted by Ramsay in the quotation above, one of Richard's sources was evidently (and understandably) the map he himself had made from Friedrich Sarre's record of travels there in 1895 [**Fig. 55**]; Richard was not to know that this record was questionable.[82] More generally, the virtual impossibility of arranging for checks to be made anywhere on the ground before *KvK* went to press was a severe, albeit

[77] Heinrich Kiepert's own conjectural (and erroneous) mapping of the Troad in 1842 created confusion for decades: see Talbert (2019) 111.

[78] Jerphanion (1909) 375 n. 5.

[79] See Anderson (1903) 5–6. His own term for the instrument was "trocheameter," a type of waywiser presumably.

[80] For distances recorded in hours note, for example, the official communications overview map of the entire Ottoman Empire dated 1893 (*Forgotten* V.37); the twelve maps of the Ottoman Public Debt Administration's *nazarets* (districts) in Asia Minor issued around 1900 (ibid. V.35); and **Figs. 29**, **61**.

[81] For a vivid overview of the difficulties facing the conscientious traveler even at the beginning of the 20th century, see Leonhard (1915) 157–61.

[82] For Sarre, see Appendix, s.v. Two routes from Konia on *KvK* CIII [1901] are credited to him.

inevitable, limitation. To be sure, as the maps gained circulation, and travelers with firsthand knowledge (like Ramsay and Jerphanion) then reported both errors and fresh data, pressure to produce revised versions might develop. Even so, any advance achieved in this clumsy manner would still be unavoidably slow and patchy. In all probability, numerous unexplored areas left blank would long have to remain so, and the rendering of physical elevation would remain largely impressionistic.[83]

Jerphanion (p. 368) recognized Richard's alertness to fresh data, but made no remark about the extent to which he relied upon the record created by the geographer and geologist Richard Leonhard, who undertook three extensive journeys through Paphlagonia as he termed it (north-central Asia Minor) in 1899, 1900 and 1903. Leonhard is named as an informant on *KvK* AIV [1901], so by then he and Richard were already in contact. However, Leonhard is not mentioned in the 1901 *KvK* brochure, so it was perhaps only after his journey in 1903 that he commissioned Richard to produce two maps (one topographical, the other geological) of the large area he had traversed since 1899. Richard must have been eager to accept the commission because he was acutely aware of how ill-documented the area was otherwise[84] — even immediately north of the Eskishehir–Angora railroad, as *SpecK*'s 1892 extension of map VI confirms. [**Fig. 4**] However, *KvK* had to remain his priority, and he evidently proposed that for the coverage desired by Leonhard a mosaic would be formed from as many as six *KvK* maps: AIII in its entirety, substantial parts of AIV, BII, BIII, and smaller ones of AII and BIV. Although AIV and BIV had already been issued in 1901, fortunately for Richard the rest could be prepared together without haste. In the event, they were among the last *KvK* maps to appear — AII in 1906, AIII, BII and BIII all in 1907. Thereafter AIV was immediately revised (see below), with its second edition appearing in 1908. In the same year Richard then made the mosaic with the coverage desired by Leonhard [**Figs. 43**, **44**], and also discussed his own efforts in a section (dated March 1908) of the book Leonhard was preparing. However, this book was not finished until 1914, and only published the following year; so Jerphanion in 1909 could not know of Richard's contribution to it.[85]

Richard generously declares the mosaic — and thus the corresponding parts of *KvK* — to be Leonhard's work, derived from his notes,

[83] A descriptive label may at least indicate the landscape of an area left blank. Note especially CIV (center, near bottom): "Bergige und fast unpassirbare, mit Fichtenwäldern und Gestrüpp bedeckte Gegened. Tiefe Thäler, keine hohen Berge."

[84] See Leonhard (1915) 161.

[85] Ibid. 161–63. Richard's two maps made in 1908 — lithographed, not engraved — accompany the book folded in a pocket.

sketches, measurements and photographs, together with valuable additions gathered by Richard Preusser on journeys in 1906. Even so, the mosaic's framework was determined by Richard, who explains its six principal lines to which all other features were then related. First, a southern and a northern line across the mosaic, the former the CFOA Eskishehir to Angora railroad, the latter the Black Sea coast, neither altogether satisfactory in Richard's view.[86] He agreed with Walther von Diest that the detailed survey record of the railroad was not very reliable ("Aber wir haben eben nichts Besseres"), and complained that the British Admiralty's Black Sea charts were even less accurate, given their undue dependence on Russian data from as long ago as the 1830s.[87] Second, however, Richard placed greater confidence in four of Leonhard's routes to or from the Black Sea, each of them outlined in red on the topographical mosaic (but not on the geological, nor on the corresponding *KvK* maps):

Angora — Tshangry — Kastamuni — Ineboli;
Ineboli — Dadai — Aratsch — Bojaly — Tsherkesh — Ishik-Dagh — Tshorba Bazar — Angora;
Beybazar, starting out westwards and then proceeding through previously unexplored mountain country to Boli and then Eregli;
Aktsche-Shehr (on the Black Sea coast west of Eregli) south-west to Akjazy, next over four mountain ranges to Gönük, then to Alpu Köi on the Eskishehir to Angora railroad.

Leonhard contributed further to the value of Richard's mapping with his provision of over 300 spot-heights, all painstakingly measured in the course of his three journeys with instruments and procedures that he explains in detail.[88]

[86] Richard does not draw attention to the break in the railroad at the bottom south of Gordium. Why its loop here through Polatly (see *KvK* BIII) was left outside the mosaic's frame goes unexplained.

[87] For the relevant pair, see *Forgotten* V.39.

[88] Leonhard (1915) 165–69 for listing (most figures rounded to the nearest 5m); explanation, ibid. 163–65.

7. Revision: *Karte von Kleinasien*

1908–1909

Leonhard also took measurements to calculate the co-ordinates of notable settlements visited on his journeys. In some instances he was satisfied (as others had been) even with figures determined decades earlier — by Ainsworth for Angora, for example, and by Wrontschenko for Tshangry. In other instances, however, he maintained that the accepted location for a settlement was sufficiently inaccurate that its placement on a map now warranted shifting. In the case of Zafaranboli, for example, Richard could readily accommodate the required shift because the relevant *KvK* map AIII had not yet been produced when he received Leonhard's data. By contrast, Kastamuni was a more awkward case. It had been placed at the left margin on AIV issued in 1901, but Leonhard's revised co-ordinates required shifting it westwards onto AIII, where it duly appears on this map (among the last to be issued) in 1907.[89] It was primarily in order to supersede Kastamuni's duplication that Richard then gave priority to producing a second edition of AIV, issued in 1908. Predictably, it reflects substantial changes from Sinob westwards [**Fig. 18a**, **b**]. A further change — to which Richard does not draw attention — is the shifting of Amasia to this map from the northern edge of BIV (also first issued in 1901).[90]

With such thorough revision of AIV, *KvK* was now completed in Richard's view, as a brief notice informed subscribers, and as the 1929 brochure reaffirms. The notice (on red paper) was attached conspicuously to the front of the protective cover in which the new AIV was supplied:[91]

> Im Vorjahre eingegangene neue Materialien haben eine Neuzeichnung des östlichen Teils des kürzlich erschienenen Blattes *Zafaranborlu* [AIII] notwendig gemacht. Die Folge hiervon war die Neuherausgabe einer zweiten Auflage des Blattes *Sinob* [AIV], deren Zusendung hiermit erfolgt.
>
> Mit dieser neuen korrigierten Ausgabe des Blattes *Sinob* liegt die *Karte von Kleinasien* 1:400,000 nunmehr komplett vor und wird in folgenden Ausgaben geliefert: [list of formats and their prices follows]

[89] Compare the case of Tchetikdji-Kiöi on *SpecK* VIII and IX, noted above.

[90] The course of the Jeshil Yrmak (= Kızılırmak) north-east of Amasia is also much revised. A second edition of BIV with Amasia removed would not appear until 1914.

[91] The Institut für Kulturgeschichte der Antike, Vienna, holds a copy.

In the event, the intention mentioned in the brochure at the outset in 1901 to issue subsequently one or more maps — at a scale to be determined — of Ottoman administrative divisions (as Heinrich had made for *SpecK*) was never fulfilled, although in his review of *KvK* to 1908 Martin Hartmann remained hopeful.[92] What he deplored was the lack of a gazetteer, although he must have realized that to produce one would be a major undertaking, especially if it were to be made a single comprehensive listing rather than map-by-map.[93] A surely no less desirable supplementary resource left unmentioned is an annotated listing of the informants whose surnames alone appear on the maps, in other words the Appendix presented here or its equivalent.

Neither the 1929 brochure nor (it seems) any other source elucidates the progress of Richard's thinking about a second edition. Conceivably, in the first instance he had not intended to produce any map in a second edition beyond the special case of AIV in 1908. For certain, the impression must be that he came to decide otherwise only gradually.[94] No other map appeared in a second edition in 1909, and in 1910 only DIV.

8. Second Edition: *Karte von Kleinasien*

1910

There was good reason to revise DIV, because now — eight years since its original publication in 1902 — the Mersin–Tarsus–Adana railroad (opened in 1886) was no longer the only line to be shown here. Rather, by 1910 the route of the important CIOB main line south from Konia via Ulu Kyshla (on CIV) had been determined [**Fig. 16**], and so could be drawn across DIV from the top margin south through Belemendji (= Karapunar), Dorak and Jenidje (= Yenice) to Adana, then on through Toprak Kale and Dervishije (= Mamuré) to the right margin at Bagatshe (= Baghdje), with a branch from Toprak Kale south to Alexandrette/ Iskenderun. Even so, none of this linework was added, and the changes made otherwise are relatively minor. They include the addition of several villages north and south of Elmendjik (near the top margin, east of long.

[92] Hartmann (1909) 279. Mention of this intention is removed from the 1929 brochure.

[93] Note the length of the gazetteer produced to accompany *ΓΕΩΓΡΑΦΙΚΟΣ ΧΑΡΤΗΣ ΤΗΣ ΝΕΑΣ ΕΛΛΑΔΟΣ* (1921) credited to Richard Kiepert (posthumously) and Melching. Princeton University library holds a copy.

[94] Hartmann (1909) 279 evidently thinks that maps would only be revised when a clear need became apparent.

35 00), and a route there along the west bank of the Körkün Su credited to a new informant for this map, Arthur Janke.[95] Similarly, routes were added north of Olba (near the left margin, latitude 36 37), one credited to another new informant, Ernst Herzfeld.

No doubt failure to add the CIOB lines was quickly considered a major lapse to be remedied without delay: hence the unique expedient of a 2nd/3rd edition, dated 1910/1911. It now shows all the railroad linework just mentioned,[96] although the only section fully inked is between Jenidje and Adana — the eastern end of the existing Mersin–Tarsus–Adana railroad, that is — which the CIOB took over in 1906. In 1911, it is true, no other stretches on DIV were yet opened (nor would they be until 1912 in fact).[97]

1911

From the perspective of content, there would seem no pressing reason to follow DIV's 1910/1911 2nd/3rd edition at once with a third edition in the latter year. However, the new green tint for valleys and plains is a possible cause. It appears that by 1911 Richard had resolved to produce a second edition of every map with this tint added, and that DIV's 2nd/3rd edition was the first issued. But its shade of green was soon deemed unsatisfactorily pale. To replace it with a warmer one perhaps justified DIV's third edition, and this was the shade used thereafter — in 1911 also for two revisions of CI, as well as one of CIV and of DV.

After the revision of DIV, to address next these adjoining latter two maps was logical, and in both instances the same pair of purposes already identified stands out: the addition of railroads, and of fresh data not known at the time of the first edition. Thus on CIV in 1911 the CIOB line through Eregli, Ulu Kyshla and Podandus (Bozanti Han) southwards was added. However, the line is fully inked only to Eregli, even though it had opened as far as Bulgurlu (10 km east of Eregli) in 1904, and would open onwards to Ulu Kyshla in July 1911. Two routes, as well as watercourses and spot heights, added north of Podandus and east to the Körkün Su were all to be credited to a new informant for this map (as for DIV), Arthur Janke. Again, the addition of villages and watercourses, together

[95] "(J.)" is added sideways between Sakli and Elmendjik, by no means conspicuously.

[96] Yet here, as also on other revised maps, the routes already credited to "In." were not removed — an exceptionally laborious, time-consuming task for an engraver.

[97] Observe that the course of the CIOB branch from Toprak Kale south to Alexandrette/Iskenderun is shown as more provisional than the lightly inked main line.

with landscape changes, in the Erdjijas Dagh (Argaeus M.) area south of Kaisarije was credited to another new informant, Arnold Penther.

To add the CIOB line to DV in 1911 was even more important than it was to add it to CIV. Several long-distance railroad survey routes already traversed DV's first edition, but no railroad was drawn there. Now the CIOB line was added to span the full width of the map from the left margin at latitude 37 12 — just east of Bagatshe (= Baghdje) on DIV — to Muslimîje and into Haleb (Aleppo), then further east through Djerabulus (= Karkamis) and Harrân to the right margin. However, no section could be fully inked, because in 1911 none was yet open. The route actually built (opened in July 1914) would run further south than Harrân, passing through Tell el Abjaḍ (= Akçakale) before proceeding north to Rûs el 'Ain (on DVI).[98] Equally important for the revision of DV was strikingly improved coverage of the large region east and south of Menbidj, much of it left blank on the first edition. Now data was added from three new informants, Gertude Bell, Walter Rössler and, in particular, Mark Sykes. A surprising, and again inexplicable, omission from the revision, however, is the DHP railroad from Haleb south towards Hama, opened in 1906.

The only substantial changes to CI in 1911 were made in the areas south-west of Smyrna, south and east of Miletus, and from Alabanda south-east to the lower right corner of the map. The changes around Miletus are not credited there to Paul Wilski, but Martin Hartmann mentions him as the informant.[99]

1912

Of the six revised maps issued in 1912, Richard considered only one (BV) a major concern. Little change was made to BII. On AII, two routes between Izmid and Kandra recorded by new informant Wilhelm Endriss were added, while the projected CFOA line from Adabazar through Hendek and onwards to the right margin was now removed.[100] On BI substantial changes were made in two areas: north-east and east of

[98] The actual route to just beyond Rûs el 'Ain is drawn in conspicuous red on the undated 1:800,000 *Operationskarte* map *Aleppo* issued by the Kartographische Abteilung der Königlich Preussischen Landesaufnahme in January 1918: see *Forgotten* I.10, and Demhardt (2021) 7 for dating.

[99] See Appendix, s.v.

[100] Authorized in 1899 and opened from Kala'idjik (later Arifiye) just to Adabazar that year, it was then to continue to Boli and beyond on AIII, but (as mentioned above) was left off even that map's first edition (1907). It is still shown, however, on Imhoff's overview map of railroads in 1914 (**Fig. 16**).

Bergama as far as the right margin [**Fig. 19a**, **b**], and from Manijas Göl south-west as far as Piriler Dagh and (further east) to Pericharaxis. As Hartmann confirms,[101] these changes were prompted by new data from Alfred Philippson as well as from Josef Keil and Anton von Premerstein. An important addition that might be expected, but remains missing, is the extension of the SCP line north from Soma through Balikesri to Panderma, opened in 1912. Even if not yet open when the map was revised, its course at least must have been known.

Two comparable instances occur on CII, one of them already a slip on the map's first edition (1905): failure to show the short, but important, link opened in 1900 between the SCP and CFOA stations at Afiun Karahisar. Second, the extension of the ORC line from Dinêr to Egerdir opened in January 1912 is missing.[102] Several settlements were added at the top left of CII, as well as numerous ancient names across the map, but otherwise minimal change was made for its second edition. The same may be said about CIII, although a route from Konia east to Kara Punar and the right margin was added, with credit to new informant Arthur Janke. Also added was the CIOB line proceeding south-east from Konia (opened in 1904). The Kirili od Bey Shehir lake was redrawn, and many ancient names revised or added.

On BV, by contrast, extensive revision was called for in 1912, in particular along the Jeshil Yrmak, as well as north of it and south to the Nicopolis area, then further south-east to Gerdjanis; also all around Sivas, eastwards even as far as Divrik. Conspicuous, too, is the addition of villages and elevation hachures in the Scydisces Mons and Haeretice regions north of Divrik. Franz and Eugène Cumont, named as new informants, had traveled along the Jeshil Yrmak in 1900 and published their account in 1906. Three further new informants are not named on the map itself.[103] First, Milo Jewett, U.S. consul at Sivas from 1892 to 1905; his data prompted Richard to make landscape changes in the western part of the map, according to Martin Hartmann. Second (again according to Hartmann), the geologist Georg Berg, whose name is nonetheless absent from the map until its 1915 third edition, where he is credited for a route south of Sivas. Third, Guillaume de Jerphanion, noted above as resident at Tokat (situated on BIV, top right) 1903–1907, and reviewer in 1909 of *KvK*'s first edition. Even though he too is not named on the map as a new informant until the third edition, it may well be that

[101] (1913) 75.

[102] Strikingly, both lapses are corrected on the revised *SpecK* IX, where the SCP and CFOA stations are linked, and the ORC line extended south from Dinêr.

[103] See Appendix, ss. vv.

in some instances Richard's revision for the second already used data offered by him. In other instances at that stage, however, Richard evidently resolved to wait until Jerphanion's 1:200,000 map in preparation could provide guidance; it would not be published until 1913.[104] Hence BV first edition's inaccurate rendering of the rivers from Semerdji and Firenk/Fenk, and of the direction these then take to reach Almush (= Almous), remains uncorrected in the second edition, despite Jerphanion's criticism in his review.[105] The error was rectified, however, on the 1915 third edition. [**Fig. 20 a**, **b**, **c**]

1913

The uneven pattern of extensive and minimal revisions in 1912 continued in 1913, when almost no change was made to AVI or BVI. On AV by contrast, much was changed in the area between Ordu on the Black Sea and Göl K. (on the *chaussée* winding inland from the coast). Changes were made too between Tirebolu on the Black Sea south-east as far as the Zigana range. These no doubt reflect fresh data from the new informants botanist Heinrich von Handel-Mazzetti and geologist Franz Kossmat, who together traveled here in 1907; one route was credited to them. Handel-Mazzetti (alone) was an even more important new informant for CV, where a long route (with spot-heights) was credited to him, and hence no doubt villages, watercourses and physical feature names were added in particular south-east of Malatja and from Nemrud D. to the bottom of the map. In the former area it is evident that the landscape was now rendered less fully and confidently than on the first edition of a map already striking for its numerous zones left blank for lack of data. Its second edition does at least improve the presentation of one such zone at the far left of the map — Bimbogha D. — with the course of the Maros Su now extended and a route along it added with data from new informant Hugo Grothe.

1914

In 1914 more maps were revised than in any previous year, with the same uneven pattern persisting and *KvK*'s second edition almost brought to completion. Green tint aside, AIII was left virtually unchanged; its first edition had already taken Leonhard's data into account. None of the changes made to BIII — across the map, most notably around Köroglu (top left) — was substantial. By contrast, all but the most western and

[104] See *Forgotten* I.9.

[105] Jerphanion (1909) 373 n. 3.

southern parts of BIV were extensively changed. The northward shift of Amasia — placed on AIV in 1908, as already mentioned — is now apparent, as is the impact of fresh data from several new informants: John Anderson, the Cumont brothers and, in particular, Jerphanion.[106] For the same reason, much of CVI's landscape was changed too, from east of Göldjik lake as far as Bitlis and south to Koros Dagh, especially from below Mush south to Sa'irt. [**Fig. 21a**, **b**] New informants named are Walter Guinness, Handel-Mazzetti and Jakob Naab. Even so, altogether the landscape across the map's entire span still appears far from thoroughly known.

The same perception applies to DVI, where — except at the map's top right — the 1914 second edition does at least show many additional features, routes and names contributed by new informants: Bell and Sykes as on DV, also Herzfeld. The continuation of the CIOB main line was also added, although not fully inked and (as noted above for DV) not along the route actually built, which ran further south than Harrân, passing through (on DV) Tell el Abjaḍ (= Akçakale) before proceeding north to Rûs el 'Ain (on DVI). To be sure, the line was not opened to Akçakale until July 1914 (nor further east until June 1915), but the route under construction could no doubt have been checked a few months earlier. More understandably, further east the rendering of the CIOB line halts about 40 km short of Nsebîn.

Herzfeld was also a new informant for DIII in 1914 (a route is credited to him south-east from Karaman), together with Jerphanion, to whom a route is credited south-east from Divle (top right corner). His data is likely to have prompted the landscape changes in the latter area, and Herzfeld's likewise east from Karaman and south beyond Mut to the right margin of the map. Now added is the CIOB line's loop south through Karaman, as it proceeds from Konia on CIII and then heads north-east onto CIV (opened in 1904).

Apart from two redrawn lakes between longitudes 29 30 and 30 00 near the top of the map, DII's 1914 revision shows substantial change only over a wide area north and east of Caunus as far as longitude 30 00. Here the focus was the Dalaman river valley, its southernmost stretch in particular, where — according to the 1929 brochure — Richard now took into account a *Dalaman Chai* map mistakenly referred to as a 1909–1910 Admiralty Chart. In fact it was a 1:100,000 scale map in three parts issued by the Survey Department, Egypt, in 1911. Three sources for its compilation are stated: the revised (1872) Admiralty Chart for the

[106] As noted above, BIV was the only *KvK* map engraved wholly afresh for its second edition.

region;[107] "Young's prismatic compass survey, 1909–1910"; and "Abd el Magid Yusri 1909." [**Fig. 22**] Richard named both these individuals at the river mouth.[108] [**Fig. 23a**, **b**]

1915

The second edition of DI issued in 1915 had few changes, but one is surprising: the removal of the two border lines placed in the sea east of Amorgos and west of Astropalia/Astypalaea. This border had not shifted since DI's first edition (1904), even though after 1912 it served to separate Greece from the Italian occupiers of the Dodecanese rather than from the Ottoman empire. Not only was it now removed, but also the new border between the Dodecanese and mainland Asia Minor was not added.[109]

9. Further Second Editions: *Karte von Kleinasien*

With DI's second edition issued in 1915, a revision of every *KvK* map had now appeared. Meantime, further second editions had also been produced, for reasons by no means always clear. In particular, typically, the content seems to remain little changed (if at all) from one to the next. These initiatives began as early as 1911, when both a "Zweite Ausgabe" and a "Zweite berichtigte Ausgabe" of CI appeared,[110] likewise of CV in 1913, and of BI in 1915 after its initial second edition had appeared in 1912. The second edition of AII also issued that year was followed by another in 1913. One sound reason to produce a further second edition of BI relatively soon after that of 1912 was surely to add the important extension of the SCP line north of Soma opened in 1912 (as noted above). Nonetheless, even then the 1915 "Zweite Auflage" still omitted to do so. It was only added in the "Zweite berichtigte Ausgabe" issued later the same year.

[107] Admiralty Chart 1886, *Karaghatch to Makri*, published in 1848, revised 1872.

[108] Yusri is misspelled Jusri. The sheet (no. 2) of the Survey Department's map with coverage of the river mouth also credits Moh. Kamel Wali, but for whatever reason Richard omits his name.

[109] See *Dodecanese* (1943) 38–39, 75 (map). Compare the methodical rendering of all these borders by Muhammed Neshet Bey in his 1923 map of the new Turkish Republic: see *Forgotten* V.47.

[110] In this instance at least, the latter seemingly appeared first: see above, n. 40.

10. Third Edition: *Karte von Kleinasien*

Aside from DIV, few maps were reckoned to merit a third edition. AIV was clearly one that did, if only for adding the green tint which had not featured in Richard's thinking as early as 1908, when its second edition was produced. However, the need to take into account Jerphanion's data had also became apparent, and this was accomplished by delaying a third edition until 1914, the year after his map was published (as mentioned above). Extensive change was now made to the landscape in AIV's lower right quarter, from Osmandjyk eastwards and as far north as Kavak. Jerphanion's data prompted further revision of AV and BV too. Second editions of both had already appeared, in 1913 and 1912 respectively. In 1915 third editions followed, naming Jerphanion as a new informant. AV's landscape changes were substantial, but all on the left side of the map, west of long. 37 30. Broadly speaking, such substantial changes continued through the same part of BV, except towards the bottom of the map.

11. Fourth Edition and Later Revisions: *Karte von Kleinasien*

By 1915, DIV's rendering of the CIOB lines on its 2nd/3rd edition and on its third (both appeared in 1911) was conspicuously outdated. For most of their length these lines had been open since 1912, and following the outbreak of war in 1914 they were now more vital than ever.[111] Hence what would be a unique fourth edition was prepared for DIV and issued in 1916. Nonetheless, yet again *KvK*'s puzzlingly flawed rendering of railroads recurs here. The CIOB main line from Adana to the right margin of the map was fully inked, and the branch from Toprak Kale to Alexandrette/Iskenderun was now rendered likewise, as both should be.[112] But the entire section from the top margin to Jenidje was still not fully inked, although it had been open since 1912 *except* from Belemendji (= Karapunar) to Dorak. Here the need for a fearsome succession of bridges and tunnels created a notorious, disruptive obstacle, indicated clearly on Imhoff's overview [**Fig. 16**], and shown at 1:250,000 in the bleed top left of the British War Office 1912 map *Asia Minor: Adana*.[113] DIV's rendering by contrast is seriously inaccurate.

[111] See, for example, Pfullmann (2003) 127–28.

[112] However, at Adana there is no indication that (since 1912) a new through station on the CIOB line at the northern edge of the city had replaced the Mersin–Tarsus–Adana Railway terminus.

[113] *Forgotten* II.12. For a detailed account of this route through the Cilician Gates, see *Turkey* II (1943) 298–99.

After the appearance of DIV's fourth edition in 1916, Reimer issued no other *KvK* map identified as a further edition. Even so, on the second edition copies of DV and DVI now held by Stanford University's David Rumsey Historical Map Collection — dated 1911 and 1914 respectively — updates have been made to the rendering of railroads as they appear on the copies held by the Library of Congress and Princeton University.[114] A record of when Stanford's copies were acquired is lacking, but it is tempting to conjecture that its entire set was purchased in or after 1929 following Reimer's reissue of *KvK* with a revised brochure. The set would naturally be an attractive acquisition for the Hoover Institution established at Stanford in 1919, with its interests specially focused on World War I. By 1929, if not earlier, Reimer's stock of several maps no doubt needed replenishing, AIII among them perhaps. At least, for its reissue acquired by Stanford the opportunity has been taken to remove the notice of edition and date altogether (in fact second, 1914), presumably in order to mask how outdated the map had become. At the same time, however, another opportunity was now taken (as it had not been in 1914), namely to add labels bearing the titles of adjoining maps in the margins.[115]

In the cases of DV and DVI, by contrast, the notice of edition and date is retained, but on DV the CIOB line across the entire map (open since December 1917) is now fully inked, as is the newly added DHP line from Haleb south towards Hama, open since 1906 but (as noted above) omitted from the original second edition. On DVI too the CIOB line is now fully inked, as well as extended through Nsebîn to the map's right margin (about 50 km further east). Moreover, the line's route north-east from Rûs el 'Ain through Arada and beyond has been altered. Even so, this revision in turn does not show the route as actually constructed.[116] Because it was opened as far as Nsebîn in October 1918, the fully inked extension thus far could have been added at any time from that year onwards. Although the line would only be opened beyond Nsebîn in 1933, a prospective addition of this section rather earlier should not be ruled out, perhaps for *KvK*'s reissue in 1929.

Dating aside, there is again cause to question why the revisions made to the railroads on both these maps (like others earlier) were still left incomplete and flawed, when Reimer had always been aware that rail-

[114] The Library of Congress DVI ed. 2 has been datestamped 12 August 1914.

[115] For this addition and apparently comparable instances, see Section 4 above.

[116] The actual route north-east from Rûs el 'Ain (with a branch northwards to Mardin) is drawn on *Karte von Mesopotamien und Syrien* map 3b *Mārdîn* (1:400,000) issued by the Kartographische Abteilung der Königlich Preussischen Landesaufnahme in May 1918: see *Forgotten* IV.28.

roads would be among purchasers' prime concerns. On DV the opportunity to reroute the CIOB line further south through Akçakale was missed, a lapse all the more serious after October 1921 when by the Treaty of Ankara the long stretch from Tshobanbey (= Çobanbey, 45 km west of the Euphrates) to Nsebîn was recognized as marking the border between the new Turkish Republic and the French mandate of Syria.[117] Likewise on DVI the branch north towards Mardin (on CVI) opened in October 1918 from Derbezîje (= Ṣenyurt) was not added.

12. Conclusion

While Richard Kiepert and Reimer's management deserve high praise for embarking upon the publication of *KvK* in 1899 and completing it nine years later, still this visionary, finegrained work remains fundamentally Heinrich's lifelong accomplishment like *SpecK* before it. For all its limitations, *KvK*'s comprehensive coverage of Asia Minor at the unprecedented scale of 1:400,000 was a climactic achievement that had no match. With hindsight, a 1908 completion date seems uncannily appropriate, insofar as this year would also mark the end of an era for route-based cartography throughout the Ottoman empire. Following the 1908 revolution, mapping efforts there were no longer restricted to the haphazard, subjective synthesis of travelers' reports and itineraries which had to form *KvK*'s basis. [**Fig. 24**] Rather, from then onwards the empire's military cartographers — with excellent French and German training already gained, and using up-to-date German instruments — could at last begin the systematic surveying that Sultan Abdülhamid II had long forbidden. Inevitably, with resources limited and so much to be undertaken across the entire empire (not to mention successive crises demanding immediate attention), priorities had to be determined. Hence for mapping regions of less urgent concern (western and central Asia Minor in particular), as well as for small-scale broad overviews, there was continued reliance upon *KvK* and even *SpecK* into the 1920s, if not later still.[118] [**Fig. 25**]

By contrast, as early as 1911 the Ottoman General Staff was issuing maps of Turkey's north-east in a 1:200,000 series (double *KvK*'s scale).[119] [**Fig. 26**] Extending further east than *KvK*, the series — with an exclusively modern focus — was based on survey work, albeit rapid, that

[117] See Kayali (2008) 139.

[118] Talbert (2022) 195–97 with *Forgotten* IV.29–30.

[119] See further ibid. IV.26.

ensured unbroken coverage as well as contouring of elevations, in contrast to *KvK*'s blank areas and impressionistic hachuring. Moreover, the cartographers were Ottoman teams who traversed the ground methodically in person, rather than being foreigners constructing maps remotely. Soon recognizing the value of these new Ottoman maps, Russia's Caucasian Military Staff translated 20 that had been produced by 1914, and reissued them as an *Anatolia* series the following year, with the scale slightly reduced to 1:210,000 (in line with the Russian sequence of scales).[120] [**Fig. 27**] By the final stages of World War I and afterwards, further such new Ottoman maps were similarly being copied in whole or in part by the military mapping authorities of Britain, France, Germany and Greece.[121]

In these transformed conditions for the mapping of Asia Minor, Richard and Reimer's management surely began to reconsider the value of persisting with revision of *KvK*'s first edition. The evident decision made in 1911 to present every map more informatively with the addition of a green tint was still implemented in full, with all 24 enhanced thus appearing by 1915. A few third editions, and even one fourth, were also produced in 1915 and 1916 to reflect recent travelers' fresh data. More revealing, however, is the apparent decision to leave the second editions of AVI and BVI in 1913 almost unchanged (beyond the green tint) from their first ones issued in 1904, despite Richard's awareness of the Ottoman General Staff's new mapping here mentioned above.[122] In fact the scale, method and content of the Ottoman maps were all so superior to *KvK* that revisions of it would no longer suffice; the format itself called for radical change. Such a fresh start cannot have appealed to Richard as his health failed, and still less presumably to Reimer's management. So the format of *KvK*'s first edition was maintained, even with the awareness that it would increasingly be perceived to reflect an outmoded cartographic approach now superseded by systematic survey and its clear advantages.

Be that as it may, *KvK* without doubt continued to create a magnificent impression. Reimer's enterprising marketers evidently hoped to revive its appeal in Turkey once use of the Latin alphabet became mandatory there from January 1, 1929.[123] Such hope may account in part for the otherwise surprising reissue of *KvK* in March that year, with a

[120] Ibid. IV.27.

[121] Talbert (2022) 196 for summary; see further *Forgotten* II.11 (British maps redrawn, 1920–1923); IV.31 (France); IV.28 (Germany); III.22 (Greece).

[122] Débarre (2015) 13.

[123] Talbert (2022) 197.

revised brochure which nonetheless omits to caution that merely token effort had been made to revise the maps themselves since 1916 at the latest, and in several instances much earlier, even as far back as 1904.[124] So for current use in 1929, following a traumatic period for Turkey, *KvK* was by then embarrassingly out of date in numerous respects. To mention only two conspicuous changes arising from the turmoil, widespread renaming had occurred, and Turkey's gains of territory by the Treaties of Moscow and Kars (March and October 1921) had transformed the border with Russia.[125]

Even so, among classicists and Byzantinists *SpecK* and *KvK* continued to hold special value, and for far longer than might have been anticipated. Initially it mattered little perhaps that the past — which had so preoccupied both Kieperts — was of no concern to the Turkish General Staff. But later, once a pressing need for new maps with a primary focus on the past was widely felt, the persistence of this outlook did matter.[126] Eventually, projects were developed — outside Turkey itself — for both classical and Byzantine Asia Minor, but it was not until very late in the twentieth century that their maps began to appear, and even then the scales were smaller than those the Kieperts had dared to adopt.[127] The Byzantine project is still actively striving to complete its coverage.[128]

Today, *SpecK* and *KvK* together continue to preserve in detail a unique record of how European knowledge of Asia Minor and its past advanced impressively, albeit unevenly, in the course of the 19th and early 20th centuries. They present a distillation of rich, varied sources (some Ottoman too), all of which call for informed identification now provided here for the first time. Finally, for historians of cartography the two Kiepert series stand as heroic monuments to laborious methods used for constructing and producing maps even in the early 20th century: these

[124] Whether the opening of the Archäologisches Institut des Deutschen Reiches in Istanbul in 1929 is at all relevant to the timing of the reissue, or mere coincidence, remains unclear; see Fildhuth (2022) 380–81.

[125] *Turkey* I (1942) 10–11, 319–20. For this border, again compare the rendering by Muhammed Neshet Bey in his 1923 map of the new Turkish Republic: see *Forgotten* V.47.

[126] Ergin (2010) sums up Turkish scholars' approach to the classical and Byzantine periods during the early Republic as timid and ambivalent. For general Turkish indifference, even hostility, to Byzantium, note Eldem (2022) 29–34.

[127] Talbert (2000); (2019) 86–89, 99–102, 169–87. Turkey's lack of interest in the *Tabula Imperii Romani* (begun in 1929) gravely handicapped this project; still worse, a plan to proceed without Turkey's involvement had to be abandoned after 25 years' fruitless effort (ibid. 84).

[128] Visit https://tib.oeaw.ac.at/, last accessed 31.08.24.

now seem barely credible in the present age of spaceborne photography and digital technology.

Appendix

Individuals and Groups Credited as Informants for *Specialkarte vom Westlichen Kleinasien* and *Karte von Kleinasien*

This Appendix is a first attempt to identify all those credited by the Kieperts as informants for their *SpecK* and *KvK*, and to point briefly to the nature of the data in each instance, also to where it may be found if possible. Attention is drawn to the many gaps in our knowledge.

On *SpecK* maps, only informants about spot-heights are credited: **Table 1** lists their surnames and the abbreviations used.[129] Routes for which Heinrich Kiepert and Ernst Fabricius provided data are colored red on the maps. Otherwise, informants are identified in Heinrich's accompanying Begleitworte, where he does add that he would eventually specify his sources of information for every route.[130]

On each *KvK* map, by contrast, informants are credited along routes (with an abbreviation), but only rarely for spot-heights, and their full surnames are listed below the map.[131] Four groups are also credited.[132] While there are no Begleitworte for *KvK* maps, some further informants are named in either or both issues of the brochure (1901, revised 1929). They are included here, together with individuals named only in Richard Kiepert's response to an inquiry by Martin Hartmann (1913) about whose work had especially contributed to the revision of maps (eleven in total) for *KvK*'s second edition up to the end of 1912.

Unless otherwise noted below, informants named on a *KvK* map's first edition are named again on its subsequent ones; the same applies to those whose names are added to a second or third edition. This Appendix lists informants in alphabetical order of surname (with a first name, or at least initial, if known), *not* in the order of the abbreviations on *KvK* maps. **Table 2**, however, which summarizes the naming of each informant map-by-map, *is* presented in alphabetical order of abbreviation (with

[129] *SpecK* (1890) 8 adds abbreviations for Mordtmann (Mo) and Vrontchenko (Vr), but neither seems to appear on any map.

[130] Ibid. 5–6. This intention was not fulfilled.

[131] Exceptionally, full names (without listing below the map) are used to credit Kinneir, Leake and Olivier on DIII, and Berg on BV (ed. 3). The naming of Abd el Magid Jusri and Young on DII (ed. 2) is comparable: see ss. vv.

[132] Eisenbahn-Ingenieure; Englische Offiziere; Ingenieure in türk. Diensten; Russische Offiziere.

minor deviations for ease of use). Formulation of the abbreviation for an informant may vary from one map to another.

The entries here are deliberately kept brief, with their scope typically limited to activity which relates to *SpecK* or *KvK* or both. Bibliographies are likewise brief; where there is none, I have failed to find anything relevant. For the most part, publications arising from an informant's experience in Asia Minor are not cited, except in cases where little else seems known, or because one or both Kieperts contributed to them. Much published up to 1915 is conveniently listed (in date order) by Ewald Banse, *Die Türkei: Eine moderne Geographie* (1915) 411–26.[133] Note also the wide-ranging bibliographies in Michael Greenhalgh, *From the Romans to the Railways: The Fate of Antiquities in Asia Minor* (2013) 391–431.

n.b. On *KvK* maps, abbreviated names are followed by a period, as here. *SpecK*'s practice in this respect is less consistent, so here the period is omitted.

Abd el Magid Yusri with Young: *KvK* [DII (ed. 2)]

Egyptian (?) cited as a source for the three-part *Map of Dalaman Chai* (1:100,000) issued by the Survey Department, Egypt, in 1911; the nature of his work is not specified [**Fig. 22**]. Named at the river mouth — with Yusri misspelled Jusri — on *KvK* DII (ed. 2) [**Fig. 23b**].

Ainsworth, William F. (1807–1896) *SpecK* (1890) 3–4; VIa [Ai]; *KvK* AIII, AIV, BIII. BIV, BV, CIII, CIV, CV, CVI, DIV, DV, DVI [Ains(w).]

British surgeon and geologist, who traveled widely through Syria, Mesopotamia and Asia Minor, 1835–1840, and published a detailed account in two volumes *Travels and Researches in Asia Minor, Mesopotamia, Chaldea, and Armenia* (London: Parker, 1842). Maps drawn by Heinrich Kiepert from 1843 took account of his findings: see Zögner (1999) #42, 44, pp. 83–84. [ODNB; Robert (1980) 44; Débarre (2016) index; Mitford (2018) index]

Anderson, John G. C. (1870–1952) *KvK* AIV (ed. 2), AV (ed. 2), BI, BII, BIII, BIV (ed. 2), CIII, CIV [An(d).]

Scottish classicist and epigrapher (taught by Ramsay), who traveled in central Asia Minor and Pontus, 1896–1900 and 1911. Camden Professor of Ancient History at Oxford, 1927–1936. For his route in 1899, see Mitford (2018) fig. 182. For his correspondence with Franz Cumont (who

[133] This book has later editions, but its 1915 bibliography seems not to have been updated. For maps, see further Fischer (1920).

explored Pontus a year later; see s.v.), note Bonanno (2022), especially 54–66. [DBC; Gill (2011) 300–301 and index; materials in Calder Collection, University of Aberdeen; not in ODNB]

Andrus, Alpheus N. (1843–1919) *KvK* CVI [An.]

American missionary based at Mardin from 1868 to 1915. Sachau (see s.v.) in his 1880 study (p. 92) thanks Andrus as an informant. Surveys made by him formed the basis of the 1:600,000 scale map "Jebel Tur in the North East Corner of Mesopotamia" in Oswald Parry, *Six Months in a Syrian Monastery* (1895). [Shavit (1988) 13–14]

Anton, Max *KvK* AIII, BII, BIII [An(t).]

German officer who traveled with von Diest in northern Asia Minor in 1892. He contributed to Karl Kannenberg's *Kleinasiens Naturschätze* (1897, see s.v.). [Kornrumpf (1998); Robert (1980) 30]

Arlaud, Lucien-A. *KvK* brochure

Member of a long-established French family in Constantinople and Smyrna. The *KvK* brochure recognizes him, among other engineers, for assistance in mapping the south-west. The Kiepert-Zimmer held a manuscript of his 1:50,000 scale map made in 1880 of Sevdiköi (today Gaziemir, where Izmir airport is situated), which he had surveyed at 1:10,000 (#5676, p. 325). A report by him "Les tremblements de terre à Chio en 1881" was published in *Archives des Sciences Physiques et Naturelles* (Geneva) 6.1 (1881) 495–504. [n.b. name misspelled Arland in Staatsbibliothek Berlin catalog]

Arundel[l], Francis V. J. (1780–1846) *SpecK* (1890) 5; *KvK* CII [Ar.]

Levant Company (Anglican) chaplain at Smyrna from 1822, and collector of antiquities. He traveled extensively in western Asia Minor in 1826 and 1833, making a particular study of Antioch in Pisidia. In his *SpecK* Begleitworte (1890) 5 Heinrich Kiepert recognizes the value of Arundell's findings, but points out that for most of the areas he explored there were now more accurate records made by Ramsay and others. [ODNB]

Austin, Charles E. (1819–1893) *KvK* brochure, AV, BV [Au.]

British civil engineer who made surveys for railroads and also constructed them. He traveled widely in Asia Minor for these purposes between 1864 and 1873, as well as in 1888. A 1:500,000 scale *Original Map of the country east of Smyrna showing the railways to Kassaba and Aidin principally from surveys by C. E. Austin. Drawn by E. C. Ravenstein* was published in *Ocean Highways: The Geographical Review* 1 (April 1873) 8. In 1881–1882 Austin worked an (unsuccessful)

mining concession in the Sivas region. The Kiepert-Zimmer held a 1:100,000 scale map made by him of the area between Kerassondi and Karahissar in February 1889 (#5533, p. 316). In recognizing his assistance in mapping the north-east, the *KvK* brochure refers to him (along with Everett and Maunsell) as an English officer, but this is mistaken. [obituary in *Minutes of the Proceedings of the Institution of Civil Engineers* 113 (1893) 329–31; not in ODNB]

Badger, George P. (1815–1888) *KvK* CVI [Ba(d).]

British missionary and Arabic scholar who traveled in Palestine, Syria and Turkey (Kurdish areas especially) intermittently during the 1830s and 1840s, and again in 1850. Maps drawn by Heinrich Kiepert from 1853 took account of his findings: see Zögner (1999) #44, p. 84. [ODNB; Zögner (1999) 167]

Barth, Heinrich (1821–1865) *SpecK* (1890) 5; *KvK* BII, BIII, BIV, BV, CIV [Ba.]

German explorer and scholar who traveled in Asia Minor in 1847 and (with Mordtmann) in 1858. In 1860 he published *Reise von Trapezunt durch die nordliche Hälfte Klein-Asiens nach Skutari im Herbst 1858* (Gotha: Perthes). He is among the travelers named on two of Heinrich Kiepert's maps drawn in 1886 for Sterrett [II, III = **Figs. 58**, **59**]; Heinrich also acknowledges use of his data for the easternmost parts of *SpecK* III and VI. [WBIS; Débarre (2016) index]

Bell, Gertrude Lowthian (1868–1926) *KvK* DV (ed. 2), DVI (ed. 2) [Be(ll).]; see Hartmann (1913) 75–76

British traveler in the Middle East and Asia Minor from the 1890s through World War I. [ODNB]

Belloc *KvK* brochure, AIV, BV (ed. 2) [Bel.] Beloc *KvK* AV [Bel.]

The *KvK* brochure recognizes Belloc, among other engineers, for assistance in mapping the north-east. The Kiepert-Zimmer held a manuscript of the 1:166,666 scale map "Route de Samsoun à Amasia, Carte accompagnant le rapport de fin d'année 1285–1889," made by "Mr Belloc" (#5673, p. 325). Conceivably, he is also the Beloc named on *KvK* AV, as well as the "Mr Belot" whose map of the stretch from Kerasund to Karahissar in north-east Asia Minor was held by the Kiepert-Zimmer (#4806/33, p. 271; cf. #5534, p. 316).

Benndorf, Otto (1838–1907) *KvK* brochure, CI, DI, DII [Be.]; with Niemann: *SpecK* (1890) 4; (1891); XI [B]; *KvK* AIV, DII [B.N.]

German-Austrian archaeologist who traveled and excavated in Lycia (with Lanckoroński, Löwy, von Luschan, Niemann and Petersen) and western Asia Minor during the 1880s and 1890s. Heinrich Kiepert

considered their findings invaluable for his *SpecK*. Its XV was a light revision of "Lykia" (1:300,000), a two-part map drawn by Heinrich for Benndorf and Niemann's *Reisen in Lykien und Karien* (1884), the record of their explorations in 1881–1882: see Zögner (1999) #486, p. 127, and **Fig. 28a**, **b**. Heinrich also issued an explanatory text (52 pp.) for this map: *Erläuterungen zu der dem Werke Reisen in Lykien und Karien von O. Benndorf und G. Niemann beigefügten Specialkarte von H. Kiepert* (Leipzig: Hiersemann, 1884). Initially, in 1882, he had drafted the map as a single sheet at 1:400,000: see Zögner (1999) #459, p. 124. In 1892 Benndorf was accompanied by Hula, and (initially) Kalinka and Krickl. [NDB]

Bent, (James) Theodore (1852–1897) *KvK* DIV [Be.]

British independent traveler who explored the south coast of Asia Minor in 1888–1889. [ODNB]

Berg, Georg *KvK* [BV (ed. 3)]; see Hartmann (1913) 75

German geologist whose name never appears in a *KvK* list of informants. However, he is named in Richard Kiepert's response to an inquiry by Hartmann about whose work had especially contributed to the revision of maps for *KvK*'s second edition up to the end of 1912. Even though BV ed. 2 was produced in that year, Berg's name (in full) only appears along a route on ed. 3 issued in 1915 (approx. lat. 39 35 long. 37 10). The Kiepert-Zimmer held a sketch at approximately 1:600,000 made by Richard Kiepert around 1900 of Berg's route from Sivas to Malatia (#5678, p. 325); presumably this sketch was not available to be taken into account for BV ed. 1, which appeared in 1902. Comparison of eds. 1 and 2 shows a clear improvement in knowledge of the physical landscape south of Sivas where Berg is named.

Bernard (died 1807) *SpecK* (1890) 5; *KvK* brochure, BIV (see below), BVI [Ber.]

French engineer-geographer lieutenant, aide-de-camp to Claude-Mathieu de Gardane, who led the mission dispatched (1807) in part to reconnoiter possible overland routes by which Napoleon might invade India. Bernard died in Persia at Khoy in November 1807, but his draft maps drawn en route were subsequently improved and completed by a fellow officer, engineer-geographer captain Bianchi d'Adda (see s.v.). It was probably the latter's versions (dated 1809, at 1:100,000 scale) — and not Bernard's original drafts, as claimed — that Heinrich Kiepert found in the French foreign ministry archives in Paris and copied there himself for *SpecK* III. [Enc Iranica, s.v. Gardane Mission; Maxime Legrand, *Les routes de l'Inde* (Paris: Dumaine, 1880) 91–92; H. Kiepert (1884) 55 n. 3]

On *KvK* BIV, although Bernard's name only appears in the ed. 1 list of travelers, the two routes marked "Ber." there are again marked thus in ed. 2 (approx. lat. 39 50 long. 33 55, and lat. 39 45 long. 34 20).

Bianchi d'Adda, Carlo *KvK* brochure, BIII, BIV (see below) [Bia.]

Piedmontese engineer-geographer captain who served as a member of the mission led by Claude-Mathieu de Gardane, which was dispatched (1807) in part to reconnoiter possible overland routes by which Napoleon might invade India. Subsequently, he improved and completed draft maps drawn en route by his fellow officer Bernard who died during the mission (see s.v.). [Enc Iranica, s.v. Gardane Mission (note bibliography); H. Kiepert (1884) 55 n. 3]

On BIV, although Bianchi d'Adda's name only appears in the ed. 2 list of travelers, the route marked "Bia." there was also marked thus in ed. 1 (south-west of Zela).

Blanckenhorn, Max L. P. (1861–1947) *KvK* DIV, DV [Bl.]

German geologist who explored northern Syria in 1888. [NDB]

Blau, Otto (1828–1879) *KvK* brochure, AVI, BVI [Bl(a).]

Prussian orientalist, attaché at the embassy in Constantinople, later consul in Trebizond, between 1852 and 1864. Mitford (2018) fig. 232 reproduces the sketch map published of his route in 1859. For the 1:1,000,000 map drawn by Heinrich Kiepert to illustrate the 1861 two-part article by Wilhelm Strecker, with Nachwort by Blau, "Das nordwestliche Hoch-Armenien," see s.v. Strecker. [DBE; Débarre (2016) index; Mitford (2018) 1, 371–73, 579]

Bluhm, Julius *KvK* brochure

Prussian officer and engineer seconded to the Ottoman army, 1851–1887. Records of his travels in Armenia during the 1850s were published both by himself and by Heinrich Kiepert. Heinrich drew reduced-scale maps of his original sketches, including (from 1859) "Routen in Hochen Armenien (Gegend zwischen Erzerum und Kars)" (1:300,000), **Fig. 29**. This was published in *Z. allgem. Erdk.* 16 (1864) Taf. VI, together with insets including (at half this scale) Bluhm's version of a Russian military reconnaissance map of the same region (n.b. *KvK* does not extend to Kars). [Zögner (1999) #24 p. 148; Débarre (2016) 239–44; not in NDB]

Blunt, Anne I. N. (1837–1917) *KvK* DVI [Bl.]

British traveler with scientific interests who explored the Middle East extensively (Arabia in particular) from the 1870s until her death in 1917. [ODNB; R. Kiepert in Oppenheim (1900) 412; Zögner (1999) 167]

Brant, James (1790–1861) *KvK* BVI, CVI [Br(a).]

British vice-consul at Trebizond, then consul at Erzerum, in the 1830s. Mitford (2018) fig. 287 reproduces the sketch map published of his route in 1835. Maps drawn by Heinrich Kiepert from 1843 took account of Brant's findings: see Zögner (1999) #42, 44, pp. 83–84. [Bryer (1985) xxxiv; Kornrumpf (1998); Débarre (2016) 110; Mitford (2018) 579 and index; not in ODNB]

Briot, P. *KvK* brochure, AV, BV, BVI [Br.]

Chief road engineer (French ?) of the Trebisond *vilayet* between, it seems, at least 1867 and the early 1880s; "recently deceased," according to Heinrich Kiepert in 1890. On Heinrich's 1:1,500,000 *Nouvelle Carte générale des provinces asiatiques de l'empire Ottoman (sans l'Arabie)* dated 1883 and published the following year, Briot is among the informants whose help is recognized (see box top right, where "N. O." is surely a slip for "N. E."). Earlier, Heinrich had secured copies of his surveys in the Pontic mountain region (Kiepert-Zimmer, #4806/29–31, p. 271, 1:100,000 scale; #5515, p. 316, 1:300,000 scale). The article of M. P. Rorit (*sic*), "Identification of Mount Théchès of Xenophon," *JRGS* 40 (1870) 463–73 is illustrated by an unattributed map. However, preparation of the 1:500,000 "Skizze der Gegend zwischen Trapezunt und Baiburt" (Taf. VI) for the German summary of the article in *Z. Ges. Erdk. Berlin* 5 (1870) 456–60 is credited to Heinrich: see Zögner (1999) #313 p. 109, #32 p. 149, and **Fig. 30**. [Kiepert (1890) 319; Bryer (1985) xxxviii; Débarre (2016) 288]

Buckingham, James S. (1786–1855) *KvK* CVI [Buc.]

British mariner and journalist who traveled extensively in the Middle East, 1813–1823. [ODNB; Zögner (1999) 46, 167]

von Bukowski [or Bukowsky], Gejza (1858–1937) *SpecK* (Nov. 1890 and 1891); XI, XII [Bk]; *KvK* brochure, CII [Buk.]

Austrian geologist who traveled twice to south-west Asia Minor, 1890–1891. Heinrich Kiepert acknowledges the value of his findings for *SpecK* IX, XI and XII. All three were published in the third and last instalment; in fact, because of Bukowski's findings, the version of XI prepared for publication had to be redrawn. [Gustav Götzinger, "Zur Erinnerung an Gejza von Bukowski," *Jahrbuch der Geologischen Bundesanstalt* 87 (1937) 1–10 at 2–3]

Burckhardt, Johann L. (1784–1817) *KvK* DV [Bu.]

Swiss employee of the (British) African Association, who was based in Syria between 1809 and 1812. [NDB; Zögner (1999) 167]

Buresch, Karl (1862–1896) *SpecK* (1890) 4; *KvK* brochure, BI, BII, CI, CII [Bu.]

German epigrapher and geographer who made five journeys in Asia Minor (especially Lydia) between 1888 and 1895. On the first of them he was accompanied by Conrad Cichorius, and spent two days (June 1888) on Lesbos with Heinrich Kiepert, who especially valued his findings in the Lake Iznik area. In 1894 Heinrich supported his application to the Berlin Academy for funding support. Following his premature death in 1896, records made by him were published by his teacher Otto Ribbeck in a memoir *Aus Lydien. Epigraphisch-geographische Reisefrüchte hinterlassen von Karl Buresch* (1898). A 1:500,000 scale map by Heinrich Kiepert was included [**Fig. 31**]. [Ribbeck (1898) IV–XV; Robert (1980) 405–406; Zögner (1999) #523, p. 130].

Butyka, D. *KvK* brochure; CVI (on neither edition, however, does there seem to be a route bearing his name) [Bu.]

Austrian officer who worked and traveled in Kurdistan as a doctor in Ottoman military service for several years around 1880. The *KvK* brochure includes him among the travelers for whom Heinrich Kiepert drafted maps, but I know of none. [Bruissenen (1997) 11; not in ÖBL or Zögner (1999)]

Callier, Camille Antoine *KvK* brochure

French officer and geographer commissioned to undertake a scientific expedition on which he eventually traveled for four years (1830–1834) through Asia Minor, Syria, Palestine and Arabia Petraea. Initially he was accompanied by his fellow officer Pie Joachim Amédée Stamaty, who died at Aleppo in September 1831. By order of the French government, much that Callier recorded was never published, although Heinrich Kiepert was permitted to consult this material and greatly admired Callier's sketches of landscape. After his death in 1889 his widow commissioned Salomon Reinach to publish inscriptions that her husband had recorded. [DBF; S. Reinach, "Inscriptions inédites d'Asie Mineure et de Syrie, recueillies par M. le capitaine Callier (1830–1834)," *Revue des Études Grecques* 3:9 (1890) 48–85 at 48–50; Broc (1992) 73–75; Débarre (2016) index s.v., esp. 112–13 and Illustration 13]

Chantre, Ernest (1843–1924) *KvK* brochure, BIII, BIV, CIV [Ch(ant).]

French anthropologist, archaeologist and geologist who undertook several state-funded expeditions to the Caucasus, Armenia and Cappadocia between 1879 and 1894. He had consulted Heinrich Kiepert before traveling to the last of these regions, and Heinrich drew a map dated 1897 [**Fig. 32**] for his book *Recherches archéologiques dans l'Asie occidentale: Mission en Cappadoce, 1893–1894* (1898). [Broc (1992) 83–86; Zögner (1999) #529, p. 131]

Chanykow [or Chanykof(f) or Chanykov or Khanikof], Nikolai V. (1819–1878) *KvK* brochure, AIII, AIV, BIII, BIV [Cha(n).]

Russian consul in Persia and explorer whose routes were mapped by Heinrich Kiepert — through northern Asia Minor in 1846 [**Fig. 33**] and Azerbaijan in 1851–1855 (*Z. allgem. Erdk.* 14 [1863] Taf. III). [Kornrumpf (1998) s.v. Chanykov; Zögner (1999) 89, 100, 103]

Chartier, Charles *KvK* brochure

The *KvK* brochure recognizes Chartier, among other engineers, for assistance in mapping the south-west. The Kiepert-Zimmer held his 1:100,000 scale map of the "chemin actuel [presumably = current route] de Karaman au Village Kozlou Boudjak limite du Vilayet de Koniah avec celui d'Adana," made in 1886 (#5532, p. 317).

Chermside, Herbert C. (1850–1929) *KvK* brochure

British officer who served as consul, later attaché, in Anatolia (1879–1882), Kurdistan (1888–1889), and Constantinople (1889–1896). He assisted Ramsay, and is among the travelers named on one of Heinrich Kiepert's maps drawn in 1886 for Sterrett [II = **Fig. 58**]. The *KvK* brochure recognizes his assistance in mapping the south-east. [ODNB; Ramsay (1890) 5]

Chesney, Francis R. (1789–1872) *KvK* CIV, CV, DIV, DV [Che.]

British officer who led an expedition to test the navigability of the Euphrates, 1835–1837. Maps drawn by Heinrich Kiepert from 1843 took account of its findings: see Zögner (1999) #42, 44, pp. 83–84 [ODNB; Débarre (2016) index]

Cichorius, Conrad (1863–1932) *SpecK* (1890) 4

German classicist who traveled with Buresch in 1888. [https://dbcs.rutgers.edu/all-scholars.cichorius-carl (*sic*)]

Copeland, Richard (b. 1792) *SpecK* (1890) 4

British naval officer and hydrographer responsible for surveying of Mediterranean coasts in the 1820s and 1830s, including Smyrna Harbour in 1834, the basis of *Admiralty Chart* 1522. Heinrich Kiepert valued measurements taken by him. [not in ODNB]

Cumont, Eugène (1869–1945) with Franz Cumont: *KvK* BIV (ed. 2), BV (ed. 3) [Cu.]; see Hartmann (1913) 75

Belgian officer and cartographer who traveled — with his older brother Franz — to Pontus and Armenia Minor in 1900. See the following entry.

Cumont, Franz-Valéry-Marie (1868–1947) *KvK* AIV (ed. 2) [Cum.]; with Eugène Cumont: BIV (ed. 2), BV (ed. 3) [Cu.]; see Hartmann (1913) 75

Belgian classicist and epigrapher who traveled — with his brother Eugène (one year younger) — to Pontus and Armenia Minor in 1900; for their route, see Mitford (2018) 1, 579 with figs. 176, 182 (overview), 185–86, 199, 220, and index s.v. Their exploration is discussed in detail (with reference to the wealth of surviving notes, sketches and photographs) in Bonanno (2022) 3–74.

Daniell, Edward T. (1804–1842) with Spratt and Forbes: *KvK* DII [Da.]

Anglican clergyman and artist who visited many ancient cities in southern Asia Minor in 1842, initially with Forbes and Spratt, but thereafter alone. The map drawn by Heinrich Kiepert for Benndorf and published in 1885 [**Fig. 28a**, **b**] shows his route. Cf. Zögner (1999) #459, p. 124; #486, p. 127. [ODNB; Débarre (2016) 93 n. 300, 104]

Davis, Edwin John with Seiff: *SpecK* (1890) 5; *KvK* brochure, CII, DII [D.u.S.]

Chaplain at the British consulate, Alexandria, who explored Pisidia with Seiff (see s.v.) in 1872. He published two books: *Anatolica; or, The Journal of a Visit to some of the Ancient Ruined Cities of Caria, Phrygia, Lycia, and Pisidia* (London: Grant, 1874); and, after a journey in 1875, *Life in Asiatic Turkey. A Journal of Travel in Cilicia (Pedias and Trachoea), Isauria, and Parts of Lycaonia and Cappadocia* (London: Stanford, 1879). Heinrich Kiepert was sceptical about the accuracy of measurements recorded by Davis and Seiff. [Robert (1954) 64; not in ODNB]

Deffner, Josef Michael (1848–1934) *KvK* brochure, AV, AVI, BV, BVI [De.]

German classical linguist sent by the Berlin Academy in 1876 to Trabzon to study the Pontic Greek dialect. The Kiepert-Zimmer held a 1:75,000 scale map of the Krom valley, *Das griechische Thal Krom südlich von Trapezunt*, drawn by him in 1876 (#5584, p. 318), and two others of areas along the Ophis river at 1:200,000 and 1:250,000 respectively (#5624–25, pp. 322–23). The *KvK* brochure recognizes Dr. Deffner for assistance in mapping the north-east. [NDB]

Dell'Agnola, P. *KvK* BI [D.A.]

The Kiepert-Zimmer held his 1:100,000 scale map of the track (*sentier*) from Frencly to Balia-Madem (in a lignite-mining district), drawn around 1890, together with related maps by Gölher and Mosca (see ss. vv.): #5392 with title in French, p. 310.

Desmazures, C. und Groppler, H. *SpecK* (1890) 5; *KvK* brochure

Mining engineers whose company was based in Constantinople. The Kiepert-Zimmer held a 1:100,000 scale map "Carte hydrographique du Bassin Mouhalitch-Soussourlon" made for it in 1879–1880, covering the Simav river valley and region from the Sea of Marmara south to Balikesri (#5610, p. 320). Heinrich used this for his *SpecK*. The *KvK* brochure recognizes the company's assistance in mapping the north-west.

von Diest, Walther (1851–1932) *SpecK* (1890) 4; III, V, VI, VIII, IX [D]; *KvK* AII, AIII, BI, BII, BIII, CI, CII [Di.]; for CI (ed. 2), see Hartmann (1913) 75–76

Prussian officer who initially went to Asia Minor in 1879. Later (1886), he was commissioned by the Royal Academy of Sciences to map the Pergamum area in connection with the German excavations. Thereafter he traveled widely in Asia Minor (the north in particular) on seven occasions until 1909; Götzen accompanied him in 1892. Heinrich Kiepert valued Diest's findings for several *SpecK* maps. Robert (1962) 433 n. 7 praises the quality of Diest's maps, but declares (1980) 30 n. 140 that he had never seen the four at 1:500,000: *Karte von Nordwestlichen Kleinasien* produced in 1903 (Berlin: Schall) to update Heinrich Kiepert's *SpecK*. [Robert (1980) 28–37; Kornrumpf (1998); *Forgotten* V.41; not in NDB]

Drummond, Alexander (died 1769) *KvK* DIV, DV [Dru.]

Scottish independent traveler resident in Cyprus for several years from 1745: from here he made journeys into Syria as far as the Euphrates. Later he was British consul at Aleppo, 1754–1756. He is the only traveler who predates the 19th century to be listed as an informant on any *KvK* map. His book *Travels through Different Cities of Germany, Italy, Greece, and Several Parts of Asia as far as the Banks of the Euphrates* (1754) includes a summary of the routes he took in Syria, with the hours and minutes (but not distances) for each stage along with an estimate of his speed (pp. 287–92). For two of the book's maps (each a large pull-out), see **Figs. 34**, **35**. [R. Kiepert in Oppenheim (1900) 394; ODNB]

Eggert, Georg P. *KvK* DIII [Egg.]

German architect who explored southern Asia Minor with Hirschfeld in 1874. Routes that he took both with, and without, Hirschfeld are distinguished on the map drawn by Heinrich Kiepert, **Fig. 39**. [Robert (1954) 65 n. 3; not in NDB]

Eisenbahn-Ingenieure *KvK* BV, CII, CV, CVI, DIV, DV, DVI [In.]

For individual railroad engineers and directors named, see Austin, Kemp, von Kühlmann, Möllhausen, Pressel, Purser.

Emin Pascha = Charles de Schwartzenberg (1809–1878) *KvK* DIV [Em.]

Belgian officer who served in the Ottoman army for about twenty years from the mid-1850s, most notably in Syria and Lebanon. [R. Kiepert in Oppenheim (1900) 394; Houssine Alloul, "'Me among the Turks ?': Western Commanders in the Late Ottoman Army and their Self-Narratives," *European Review of History* 27.1–2 (2020) 88–110]

Endriss, Wilhelm *KvK* AII (ed. 2) [E.]; see Hartmann (1913) 75

German geologist who explored Bithynia in 1908. [W. Endriss, "Quer durch die Bithynische Halbinsel," *Pet Mitt* 56:2 (1910) 177–81 and 236–40; N. Lom et al., "Geology and Stratigraphy of Istanbul Region," *Geodiversitas* 38:2 (2016) 175–95 at 176]

Englische Offiziere *KvK* brochure, BIII, BV, BVI, CIV, CV, CVI, DIV, DV, DVI [Eng(l).]

For mapping the south-east, the *KvK* brochure recognizes "vor allem das umfangreiche, unpublizierte Material des englischen War Department, welches über grosse, bisher unbekannt gebliebene Gebiete des östlichen Taurus und von Kurdistan erwünschten Aufschluss gibt."

Everett, William (1844–1908) *KvK* brochure, AVI, BVI [Ev.]

British army officer. From 1879 to 1887 vice-consul at Erzerum, then consul for Kurdistan. From 1888 to 1892 Staff College professor of military topography. [ODNB; Mitford (2018) index]

Fabricius, Ernst (1857–1942) *SpecK* (1890) 4, 10; IV, VIII [F]; *KvK* BI, CI, CII [Fa.]

German classicist and archaeologist who traveled with Heinrich Kiepert to western Asia Minor in 1886. *SpecK* colors his routes red. [NDB; Zögner (1999) #510, p. 129, with index; Débarre (2016) 290–91]

Favre, Camille with Mandrot: *KvK* DIV [F.u.M.]

French scholar with an interest in archaeology who undertook an expedition to Cilicia with Mandrot in 1874. They co-authored "Voyage en Cilicie 1874," *Bulletin de la Société de Géographie* (Paris) 1878 (Janvier-Juin) 5–37 and 116–54 (ending with notes on their map, 145–54). [not in Kornrumpf (1998) or WBIS]

Fischer, Friedrich Leopold (1798–1857) *KvK* CIII, CIV, DIII, DIV [Fi.]

Prussian officer who went on von Moltke's mission, 1837–1839. Maps drawn by Heinrich Kiepert from 1843 showed its route: see Zögner (1999) #42, 44, pp. 83–84. [WBIS; Zögner (1999) index; Débarre (2016) index]

Fitzner, Rudolf *KvK* AII [Fi.]

German economic geographer who traveled in Asia Minor in 1900 and published *Forschungen auf der Bithynischen Halbinsel* in 1903 (Rostock: Volckmann). [Catalogus Professorum Rostochiensium]

von Flottwell, Hermann with von Prittwitz und Gaffron: *KvK* AIV [Pr.]

German officer who explored the Kızılırmak (ancient Halys) river basin in 1893 with Kannenberg, Märcker and von Prittwitz und Gaffron. In 1895 he published *Aus dem Stromgebiet des Qyzyl-Irmaq (Halys)* (Gotha: Perthes). [Robert (1980) 30–31]

Fontrier, Aristoteles M. *SpecK* (1890) 5

One of two independent scholars resident at Smyrna whose publications (especially in *Mouseion kai Bibliotheke*, journal of the Greek Evangelical School there) on archaeology and local geography were valued by Heinrich Kiepert. The other was Georg Weber (see s.v.). A 1:200,000 scale version of a map by Weber ("Umbegung von Smyrna"), incorporating revisions proposed by Fontrier in 1907, appears in *RE* IIIA.1 (1929) s.v. Smyrna, col. 747 (by Ludwig Bürchner).

Forbes, Edward (1815–1854) with Daniell and Spratt: *KvK* DII [Da.]

British natural historian who was recruited by the Royal Navy in 1841 to join an expedition to the eastern Mediterranean for survey and archaeology. In 1842 he explored Xanthus and other ancient cities in southern Asia Minor with Daniell and Spratt. [ODNB]

Forbes, Frederick (1808–1841) *KvK* DVI [Fo.]

Scottish doctor from Aberdeenshire; graduate, and later medallist (1840), of the University of Edinburgh Faculty of Medicine. During a journey back from India (while serving on the Bombay Army Medical Staff), he paused at Mosul to make a detour described in "A visit to the Sinjár Hills in 1838, with some account of the Sect of Yesidis, and of various places in the Mesopotamian Desert, between the Rivers Tigris and Khábúr," *JRGS* 9 (1839) 409–30. [R. Kiepert in Oppenheim (1900) 411; Kornrumpf (1998); not in ODNB]

Galland, Joseph *KvK* brochure

French Dominican missionary, based in Kurdistan from 1882 to 1896, thereafter at Mosul until World War I. [DBF; Broc (1992) 203–204]

Godchaux, E. *SpecK* (1890) 5; *KvK* brochure

Inspecteur des forêts de France. The Kiepert-Zimmer held a copy of his 1:120,000 scale map of the forested areas in the Troas region: "Commission forestière du Kar dagh: Carte générale des bois et forêts de

l'Etat des provinces de Bigah et Balikesri ou Karussi réconnue en 1866 et 1867 par la Commission forest(re)" (#5408, p. 310). Gustav Hirschfeld provided this copy, which Heinrich Kiepert used for *SpecK*. In the *KvK* brochure Godchaux is recognized, among other engineers, for assistance in mapping the north-west, Kar Dagh specifically.

Godefroy [slip for Godeffroy ?], A. ? *KvK* brochure, BIII [God.]

The *KvK* brochure recognizes a (French ?) engineer Godeffroy for assistance in mapping the north-west, and then another (or more probably the same ?) Godeffroy likewise for the south-east. The Kiepert-Zimmer held a 1:500,000 scale map "Vilayet d'Adana," made by A. Godeffroy around 1880 (#5365, p. 309); also one at approximately 1:300,000 scale of the stretch from Sabandja to Narlahan made in 1880 by "Ingenieur Godeffroy" (#5662, p. 325).

Gölher, O. *SpecK* (1890) 5; *KvK* BI [Gö.]

Mining engineer who provided a map — used for *SpecK* — of the paved road he built from Aktschai via Adramyti to the silver mine at Balia-Maden in 1887. The Kiepert-Zimmer held this 1:100,000 scale map, together with related maps by Dell'Agnola and Mosca: #5392 with title in French, p. 310.

[Graf] Götzen, Gustav Adolf (1866–1910) *KvK* BII [Gö.]

German officer and photographer who explored northern Asia Minor with von Diest in 1892. [WBIS; Robert (1980) 30 n. 136]

von der Goltz, Colmar (1843–1916) *SpecK* (1890) 5; *KvK* AII, BII, BIII [Go.]

German officer based in Constantinople between 1883 and 1895 for the purpose of reorganizing the Ottoman army. He valued Heinrich Kiepert's work highly, and corresponded with him. For *SpecK*, Heinrich relied on Goltz's findings in the Constantinople area. [NDB; Zögner (1999) 164; Débarre (2016) 286–302, 401–404 and index]

Gorkiewicz *KvK* brochure, DIII [Go.]

The *KvK* brochure recognizes him, among other engineers, for assistance in mapping the south-west.

Graves, Thomas (1802–1856) *SpecK* (1890) 4

British naval officer and hydrographer. As commander of *HMS Beacon*, he was responsible for extensive surveying of Asia Minor's coasts in the 1830s and 1840s. [Débarre (2016) 93, 108; not in ODNB]

Grothe[ann], A. L. Hugo (1864–1954) *KvK* CV (ed. 2) [Gr.]

German orientalist who traveled extensively in Asia Minor, as well as elsewhere in the Ottoman empire, between 1896 and 1912. The letters "ann" which appear after his name are presumably an engraver's slip — "mann", of which only the first letter was removed — perhaps prompted by the name immediately below, Hartmann. [NDB; Robert (1980) 49–50]

Guinness, Walter (1880–1944) *KvK* CVI [Gu(i).]

Anglo-Irish businessman, officer, and politician who traveled in eastern Asia Minor during the early years of the 20th century, in part (it seems) to assist in gathering intelligence for mapmaking. [ODNB]

Hamilton, William J. (1805–1867) *SpecK* (1890) 5; (1891); VIII [Ha]; *KvK* brochure, AIV, AV, AVI, BI, BII, BIII, BIV, BV, BVI, CII, CIII, CIV, DIII [Ha(m).]

British geologist who traveled extensively through Anatolia, Pontus and Armenia in 1836–1837. His two-volume *Researches in Asia Minor, Pontus, and Armenia with Some Account of their Antiquities and Geology* (London: Murray, 1842) included detailed records of times, distances and latitudes. Maps drawn by Heinrich Kiepert from 1843 took account of his findings: see Zögner (1999) #42, 44, pp. 83–84. For *SpecK*, Heinrich was able to obtain from Hamilton's widow some of his original drawings made at much larger scales than his published 1:1,500,000 overview map. [ODNB]

von Handel-Mazzetti, Heinrich R. E. (1882–1940) *KvK* brochure (1929 only), CV (ed. 2), CVI (ed. 2) [(v.) Han.]; with Kossmat: AV (ed. 2) [v.Han.]

Austrian botanist who explored Pontus in 1907 — with Kossmat — and Mesopotamia and Kurdistan in 1910. For the map published of his routes during the latter year, see **Fig 36**. [ÖBL]

Handelsministerium (Ottoman ministry of commerce) *KvK* brochure

According to Richard Kiepert, an important source that he (but not Heinrich) could use was a (manuscript ?) 1:300,000 map of Asia Minor in its entirety made by the Ottoman ministry of commerce, supplied to him as a set of 40–50 photostats, often difficult to read. Nothing further is said about this map.

Hartmann, Martin (1851–1918) *SpecK* (1890) 7; *KvK* brochure, CV, DIV, DV [Ha.]

Orientalist, interpreter at the German consulate in Beirut, 1876–1887. He provided Heinrich Kiepert with a *salname* map at a time when these were difficult to obtain. On Heinrich's 1:1,500,000 *Nouvelle Carte*

générale des provinces asiatiques de l'empire Ottoman (sans l'Arabie) dated 1883 and published the following year, he is recognized as an informant who made last-minute corrections possible (see box top right). Note s.v. Puchstein and **Figs. 49**, **50** for 1:300,000 scale maps of northern Syria that Heinrich drew and published in 1890, taking into account Hartmann's findings together with those of Humann, Moritz and Puchstein. For *SpecK* I–VI and IX, Hartmann and Moritz helped Heinrich to decipher almost illegible placenames in official lists carelessly handwritten in tiny Turkish cursive. To judge by the *KvK* brochure, Hartmann ("Professor, Dr.") gave Richard Kiepert fuller assistance with Turkish and its transliteration. Hartmann (1909) reviewed *KvK*'s first edition, and demonstrated (1913) his interest in its revision for a second. [NDB; Zögner (1999) #513, p. 129; Débarre (2016) 306]

Haussknecht, Carl (1838–1903) *KvK* brochure, BV, CV, CVI, DV, DVI [Haus.]

German pharmacist and botanist who made expeditions to eastern Asia Minor and beyond as far as Persia between 1865 and 1869. From his sketches Heinrich Kiepert drew three maps (with several insets) to illustrate the routes taken, published in 1882 [Zögner (1999) #457, p. 124], together with "Vorbericht über Prof. C. Haussknecht's orientalische Reisen nebst einigen Erläuterungen," *Z. Ges. Erdk. Berlin* 17 (1882) 343–47. For maps I and II, see **Fig. 37a**, **b**. Note further Kristin Victor, ed., *Carl Haussknecht: Ein Leben für die Botanik* (Jena: Friedrich Schiller Universität, 2013) 46–50.

Heberdey, Rudolf (1864–1936) *KvK* brochure, DII [He.]; with Wilhelm: *KvK* brochure, CIII, CIV, DII, DIII, DIV [H.u.W.]

Austrian classical archaeologist and epigrapher who explored Cilicia with Wilhelm (1891–1892), and south-west Asia Minor, especially Lycia, with Kalinka (1894–1895, 1898). The report by Heberdey and Wilhelm, *Reisen in Kilikien ausgeführt 1891 and 1892*, Abhandlung VI in *Denkschriften der kaiserlichen Akademie der Wissenschaften*, phil-hist. Klasse 44 (1896) is illustrated with a map by Heinrich Kiepert that spans Adalia to Marasch, reduced to 1:900,000 scale from an original twenty times that size [**Fig. 38**]. Heberdey and Wilhelm explain (p. 2): "Besondere Mühe und Sorgfalt haben wir auf Abfassung der Itinerare und auf topographische Mappirungen verwendet, die wir theils während der Reise, theils hinterher genau auszeichneten. In zwanzigfacher Verkleinerung liegt dieses umfängliche graphische Rohmaterial, welches Eigenthum der Akademie ist, der Karte Heinrich Kiepert's zu Grunde und hat bei der Kleinheit ihres durch das Format der Denkschriften vorgeschriebenen Massstabes leider nicht volle Ausnützung finden können." [NDB]

Herzfeld, Ernst (1879–1948) *KvK* DIII (ed. 2), DIV (ed. 2), DVI (ed. 2) [He(rz).]; for DIV (ed. 2), see Hartmann (1913) 75–76

German archaeologist who documented, surveyed and excavated many sites in Turkey, Syria, Iraq and Iran from 1903 through World War I. [Enc Iranica]

Hirschfeld, Gustav (1847–1895) *SpecK* 5; XI, XII [Hi]; *KvK* brochure, AIII, AIV, AV, BIV, BV, CI, CII, CIII, DIII [(G.) Hi(r).]

German archaeologist and geographer, who explored widely in Asia Minor during 1871, 1874 (west and south), and 1882 (north and center). Eggert accompanied him in 1874. Hirschfeld corresponded with Heinrich Kiepert, who produced a 1:1,000,000 scale map of their routes in 1874, distinguishing those taken by Eggert both with, and without, Hirschfeld [**Fig. 39**]. Later, Heinrich used this map for *SpecK* IX, XI and XII. [NDB; H. Kiepert (1884); Robert (1954) 65; Zögner (1999) #408, p. 119; Débarre (2016) 291]

Hogarth, David George (1862–1927) *KvK* brochure (1929 only), CIII, CIV, CV, DIII [Hog.]; with Munro: BV [Hog.u.Mu.]

British archaeologist who traveled in Asia Minor with Ramsay in 1887 and 1890, with Gregorios Antoniou and Munro in 1891, and with Yorke in 1894. Mitford (2018) map 26 reproduces the 1:500,000 scale sketch map published of their route in the latter year. In 1910 Hogarth began excavations at Carchemish on the Euphrates. [DBC; ODNB; Fischer (1920) 86; Gill (2011) 349–52 and index; Mitford (2018) 1, 579 and index]

Hommaire de Hell, Xavier (1812–1848) *KvK* AII [Ho.]

French mining engineer and geographer, active in Asia Minor during the late 1830s. Later, in 1846, he was commissioned by the French government to report on his travels there en route to Persia, where he died in 1848. [Robert (1980) 45–46, 120–26; Broc (1992) 242–44; Mitford (2018) index. According to Zögner (1999) 167, the *Atlas historique et scientifique* (Paris: Bertrand, 1859) published as part of Hell's *Voyage en Turquie* includes a map by Heinrich Kiepert, but none seems to be credited to him (note especially Plates CVIII, CXIII–CXV).]

Hoskyn, Richard (1811–1873) *KvK* DII [Ho.]

British naval officer on *HMS Beacon* (see s.v. Graves) who led an exploration and survey of sites in Lycia during 1840–1841. He published "Narrative of a survey of part of the south coast of Asia Minor; and a tour into the interior of Lycia in 1840–1; accompanied by a map," *JRGS* 12 (1842) 143–61. [Débarre (2016) 93 n. 301; not in ODNB]

Hula, Eduard (1862–1902) with Szanto: *KvK* DI [H.u.S.]

Czech-Austrian archaeologist and epigrapher who explored Lycia with Benndorf in 1892, and Caria with Szanto in 1894. [ÖBL]

Humann, Carl (1839–1896) *SpecK* (1890) 4–5; V, VI, VIa [Hu]; *KvK* AIV, BI, BII, BIII, BIV, CI, CII, CV, DV [Hu(m).]

German road and rail engineer, as well as architect and archaeologist, active in Asia Minor from 1861 until his death in 1896. He directed excavations at Pergamum in 1878–1879, 1883–1886 and 1889–1891. His journey from Brussa to Samsun via Angora in 1882, and expedition to Nemrut Dağ with von Luschan and Puchstein in 1883, were both mapped by Heinrich Kiepert (a personal friend): see s.v. Puchstein. Heinrich valued his findings for *SpecK*, and thereafter (once resolved to map Asia Minor in its entirety at 1:400,000 scale), he sent Humann in Smyrna a manuscript copy of the complete draft for comment. [NDB; Zögner (1999) index; Débarre (2016) index; Mitford (2018) index]

Huntington, Ellsworth (1876–1947) *KvK* BVI, CV, CVI [Hun.]

American geographer and climatologist who taught at a missionary school, Euphrates College, in Elaziğ from 1897 to 1901. During the latter year, in order to map the Euphrates, he traveled 190 miles downriver. [*American National Biography*; Mitford (2018) index s.v.]

Ingenieure in türk. Diensten *KvK* brochure, AIV, BII, BVI, CV, CVI [Tk.]

Isidore *KvK* brochure

The *KvK* brochure recognizes him, among other engineers, for assistance in mapping the south-west. The Kiepert-Zimmer held a 1:100,000 scale map of the "chemin actuel [presumably = current route] de Koniah à Karamar (*sic*) pour servir de base à l'établissement d'une route Impériale empierrée," made by him (described as *ingenieur adjoint*) in 1886 (#5578, p. 318).

Janke, Arthur (1843–1928) *KvK* CIII (ed. 2), CIV (ed. 2), DIV (ed. 2) [J(a).]; with von Marées: BI [Ja.]

German captain who in 1902, accompanied by von Marées and two other lieutenants, traveled from south-east to north-west in Asia Minor to study Alexander the Great's route and to reconsider where the battles of Issus and Granicus were fought. Von Marées contributed the photographs and plans for Janke's book *Auf Alexanders des grossen Pfaden: eine Reise durch Kleinasien* (1904). Janke's record of his route from Kara Punar to Konia was especially useful for Richard Kiepert's revision of *KvK* CIII (he changed around twenty ancient names), as was

his mapping of the Körkün Su for revision of CIV and DIV. [Hartmann (1913) 76]

de Jerphanion, Guillaume (1877–1948) *KvK* brochure (1929 only), AIV (ed. 3), AV (ed. 3), BIV (ed. 2), BV (ed. 3), DIII (ed. 2) [Jer.]

French Jesuit, instructor in the Jesuit college at Tokat from 1903 to 1907. As a mapmaker himself, with firsthand knowledge of several regions of Asia Minor, he reviewed *KvK* ed. 1 in its entirety, together with AIV ed. 2, in *La Géographie* 19 (1909) 367–76. Richard Kiepert used his *Carte du basin moyen du Yéchil Irmaq* (four sheets, 1:200,000 scale), published in 1913 (Paris: Barrère), for revising *KvK*. [Talbert (2022) 197–98 and references there; *Forgotten* I.9]

Jewett, Milo Augustus (1857–1921) [*KvK* BV (ed. 2)]; see Hartmann (1913) 75

American doctor and photographer, U.S. consul at Sivas (1892–1905), then at Trebizond (1905–1911). Mentioned to Hartmann by Richard Kiepert in connection with the revision of the western part of *KvK* BV. Jewett and Heinrich Kiepert corresponded. The Kiepert-Zimmer held two 1:300,000 sketches made by him at Sivas around 1890: "to show Zara — Endnes — Kara — Hissar chaussée. Position of Karahissar, Kobe Dagh" (#5766, p. 333), and "to show Sivas-Ulesh chaussée. Course of Fedger sou. Position of Fedger Dagh." (#5677/25, p. 324). [WBIS]

Judeich, Walther (1859–1942) *SpecK* (1890) 5; *KvK* brochure (1929 only), BI, BII [Ju.]

German ancient historian from Dresden, based near Constantinople for a period, who traveled in Asia Minor during 1886–1887 and 1896–1897. Heinrich Kiepert acknowledges supplementary details about the topography of Ionian and Carian coastal areas provided by him through Goltz and used for *SpecK*. The Kiepert-Zimmer held a letter from Judeich to Heinrich dated July 10, 1897, together with "Itinerare seiner zweiten kleinasiatischen Tour von Tschanak-Kalessi nach Brusse, Routenskizzen im Massstab 1:100,000." Judeich's "Bericht über eine Reise im nordwestlichen Kleinasien" (1898) was presented to the Academy by Heinrich. [NDB; Cook (1973) 41; Zögner (1999) 166 (where "Indeich" is a slip)]

Kalinka, Ernst (1865–1946) with Krickl: *KvK* DI, DII (in this second instance Kalinka's name appears in parentheses) [Kr.]

Austrian classicist who, as a student, explored the south-west in 1892 with Krickl (and initially with Benndorf). [NDB]

Kandi = Kandes, Vasileios I. *SpecK* (1890) 6; *KvK* brochure (1901 only)

Resident of Prousa and scholar who published *Η ΠΡΟΥΣΗ ΗΤΟΙ ΑΡΧΑΙΟΛΟΓΙΚΗ ΙΣΤΟΡΙΚΗ ΓΕΩΓΡΑΦΙΚΗ ΚΑΙ ΕΚΚΛΗΣΙΑΣΤΙΚΗ ΠΕΡΙΓΡΑΦΗ ΑΥΤΗΣ* (1883), which includes a map [**Fig. 12**]. Heinrich Kiepert acknowledges the book's value for *SpecK* II and V, and the *KvK* brochure (1901 only) does likewise for mapping the north-west, specifically Brussa (BII). Such recognition for a work in modern Greek is exceptional. No scale is stated on Kandes' map, but the Kiepert-Zimmer listing of Heinrich's copy (# 5426, p. 313) records it as 1:500,000.

Kannenberg, Karl *KvK* AIV, BIII [Ka.]

German officer who explored the Kızılırmak (ancient Halys) river basin in 1893 with fellow officers von Flottwell and von Prittwitz und Gaffron, noting especially wildlife, minerals and plants. In 1897 he published *Kleinasiens Naturschätze*, with contributions by Anton, von Prittwitz und Gaffron, and Schaeffer. [Kornrumpf (1998); Robert (1980) 31]

Karolidis, Pavlos (1849–1930) *KvK* CIV [Kar.]

Cappadocian-Greek (born and raised near Kayseri) linguist, historian and archaeologist, who studied his region of origin during the 1870s and 1880s, especially its Greek dialects. He is among the travelers named on one of Heinrich Kiepert's maps drawn in 1886 for Sterrett [II = **Fig. 58**]. [*Encyclopaedia of the Hellenic World*]

Keil, Josef (1878–1963) with von Premerstein: *KvK* BI (ed. 2) [K.u.v.Pr.]; see Hartmann (1913) 75–76

Austrian classical archaeologist and epigrapher. As secretary of the Austrian Institute at Smyrna (1904–1914), he was able to travel extensively in Asia Minor, with von Premerstein among others. [NDB]

Kemp, Henry (1839–1895) *SpecK* (1890) 4

From 1881 to around 1893, chief engineer of the SCP railroad, who provided Heinrich Kiepert with copies of surveys and plans. [*Grace's Guide to British Industrial History*; not in ODNB]

Kiepert, Heinrich (1818–1899) *SpecK* IV, XII [K], and *passim*; *KvK* brochure, BI, BII, CI, DI, DII [Ki.]

Prussian geographer who traveled in western Asia Minor with Schönborn in 1841, and alone in 1842 [Débarre (2016) Illustration 8, p. 383]; also in 1870 (Caria, briefly), 1886 with Fabricius (Constantinople, Pergamum, Magnesia, Smyrna), 1888 (west coast). [Fischer (1920) 86–88; Zögner (1999); Débarre (2016)]

Kinneir, John Macdonald (1782–1830) *KvK* [DIII]; CVI [Kin.]

British officer who traveled in Asia Minor twice (1810 and 1813–1814), and also to Armenia and Kurdistan on his second journey. For the route he took north from Gülnare/Celenderis in February 1814, *KvK* DIII cites Wrontschenko and Fischer as informants in its standard style (cf. **Fig. 57**), but also adds — exceptionally — the full names Kinneir, Leake, Olivier along it. For Kinneir's record of this route, see his *Journey through Asia Minor, Armenia and Koordistan in the Years 1813 and 1814* (London: Murray, 1818) 202–11. [ODNB; Débarre (2016) index; Mitford (2018) index]

Koch, Karl H. E. (1809–1879) *KvK* AVI, BVI, CVI [Ko.]

German botanist who explored and mapped eastern Asia Minor and southern Russia during 1836–1838 and again during 1843–1844. Maps drawn by Heinrich Kiepert from 1844 took account of his findings: see Zögner (1999) #44–45, p. 84. [ADB; Bryer (1985) xxxvi; T. B. Croat and C. V. Kostelac, "Karl Koch's career with Araceae and his connection with America: Family photo of Karl Koch found with relative in St. Louis," *Aroideana* 29 (2006) 161–65; not in NDB]

Körte, Alfred (1866–1946) *KvK* brochure (1929 only), [AII], AIII, BII, BIII, CII [Kö.]

German archaeologist and epigrapher who explored the area opened up by the CFOA railroad to Angora during the 1890s. A route on AII (continued on AIII) bears his name souh-east of Hendek, but he is only listed as an informant on the latter map. [Robert (1980) 50; Kornrumpf (1998)]

Koldewey, Robert (1855–1925) *KvK* brochure, BI, CV [Ko(l).]

German archaeologist who excavated at Assos and on Lesbos during the 1880s, and then intermittently between 1888 and 1902 in south-east Asia Minor. He collaborated with Heinrich Kiepert on mapping Lesbos. [NDB; Zögner (1999) 69 n. 26 and index]

Kossmat, Franz (1871–1938) with von Handel-Mazzetti: *KvK* AV (ed. 2) [name misspelled Kosmat] [v.Han.]

Austrian-German geologist who explored Pontus with von Handel-Mazzetti in 1907. [ÖBL]

Kotschy, Theodor (1813–1866) *KvK* CIV, DIV [Ko.]

Austrian botanist who explored in Cilicia and Syria during 1836–1837, 1853 and 1859. On the first of these journeys he was accompanied by Russegger. In 1858 he published *Reise in den Cilicischen Taurus über Tarsus* (Gotha: Perthes). [ÖBL]

Krause *KvK* brochure, AIV, AV, AVI, BV, BVI [Kr.]

"Bergwerksdirektor", or chief mining engineer, acknowledged in the *KvK* brochure for assistance in the mapping of north-east Asia Minor. Specifically, while at Gümüsh-hanê (or Gumischchana) in the Trabzon region, he provided material for a map of Greek-speaking areas drawn by Heinrich Kiepert in 1890 [**Fig. 40**]. The Kiepert-Zimmer held "Materialien zu Bergwerkdirektor (*sic*) Krauses Reisen in Kleinasien ges. v. Richard Kiepert 1888" (#5174, p. 294).

Krickl, Ernst *KvK* brochure (1929 only); with Kalinka: *KvK* DI, DII (in this second instance Kalinka's name appears in parentheses) [Kr.]

Austrian Engineer Corps captain and photographer chosen to travel in the south-west with Kalinka in 1892 (also initially with Benndorf), and to record the routes taken. His personal record of three albums of photographs with captions was published in 2005 (German text translated into English). [Nezih Başgelen (ed.), *Lycian Journal 1892: Ernst Krickl* (Istanbul: Suna and Inan Kırac Foundation, 2005)]

von Kühlmann, Otto (1834–1915) *SpecK* (1890) 4

First director-general of the CFOA — its entire line from Constantinople to Angora was open from the end of 1892 — who provided Heinrich Kiepert with copies of surveys and plans. [NDB]

[Graf] Lanckoroński[-Brzezie], Kar(o)l (1848–1933) *KvK* brochure, CII, DII, DIII [La.]

Polish-Austrian aristocrat who traveled in Lycia in 1882 (with Benndorf and von Luschan), and then in Pamphylia and Pisidia, 1885–1886. Heinrich Kiepert drew an Übersichtskarte and a 1:300,000 scale map of Pamphylia and Pisidia [**Figs. 41**, **42**] for his two-volume *Städte Pamphyliens und Pisidiens* co-authored with Niemann and Petersen (1890–1892; also issued in French and Polish translations). [ÖBL]

Landron, Eugène (born 1820) with Le Bas: *KvK* CI [Leb.]

French artist and draftsman who traveled in Greece and Asia Minor with Le Bas (1843–1844), and illustrated the subsequent publication of their finds. [WBIS]

Langlois, Victor (1829–1869) *KvK* brochure, DIV [Lan.]

French academic commissioned by his government to visit (1852–1853) areas of Cilicia populated mainly by Armenians, as well as to excavate both there and in Armenia Minor. He is among the travelers named on one of Heinrich Kiepert's maps drawn in 1886 for Sterrett [I = **Fig. 57**]. The *KvK* brochure recognizes his assistance for mapping the south-east. [Spiridonakis (1973) 365; Broc (1992) 277–78]

Layard, Austen H. (1817–1894) *KvK* CVI, DVI [La.]

British independent traveler in Asia Minor and beyond (1839–1847), attaché at the British embassy in Constantinople, and archaeologist in the Mosul region. Later (1877–1880), ambassador in Constantinople. Maps drawn by Heinrich Kiepert from 1853 took account of his findings: see Zögner (1999) #44, p. 84. [ODNB]

Leake, William M. (1777–1860) *KvK* [DIII]

British officer, member of a British group authorized to travel overland from Constantinople to the south coast of Asia Minor (intending to embark there for Cyprus and then Egypt). Having set out in January 1800, the following month they took the route from Karaman (via Mout) to Gulnar/Kelenderi (hiring camels to carry baggage, and battling snow). For this route, *KvK* DIII cites Wrontschenko and Fischer as informants in its standard style (cf. **Fig. 57**), but also adds — exceptionally — the full names Kinneir, Leake, Olivier along it. For Leake's record, see his *Journal of a Tour in Asia Minor with Comparative Remarks on the Ancient and Modern Geography of that Country* (London: Murray, 1824) 103–17. [ODNB]

Le Bas [or Lebas], Philippe (1794–1860) *SpecK* (1890) 5–6; (1891) 1; *KvK* BII, CII [Le(b).]; with Landron: CI [Leb.]

French classicist commissioned by his government to explore and excavate in Greece and (western) Asia Minor, a journey (1843–1844) notable for its epigraphic discoveries; Landron accompanied him. Maps drawn by Heinrich Kiepert from 1853 took account of his findings: see Zögner (1999) #44, p. 84. However, Heinrich warned that the map published by Le Bas in 1847 (along with an incomplete itinerary) was a careless production, evidently often erroneous; in consequence, he confined his reliance on it to only a few otherwise undocumented route stretches in Mysia, Lydia and Caria (*SpecK* V, VIII, XI). [WBIS]

Leclercq *SpecK* (1891) 2; VI, IX [Le]; *KvK* brochure

Belgian chief engineer in Turkish service whose calculations of spot-heights — supplied through Goltz — were used by Heinrich Kiepert for *SpecK* VI and IX. He is recognized (with the rank of Major, and *not* listed among the engineers) in the *KvK* brochure for assistance in mapping the north-west. The Kiepert-Zimmer held a 1:100,000 scale map of the stretch Scutari to Chilé made by chief engineer Leclerc — the same individual ? — dated December 1889 (#5675/10, p. 324).

Lejean, Guillaume (1824–1871) *KvK* brochure, BIV, CIV, CV [Le(j).]

French explorer who traveled through Asia Minor during 1865 in the course of retracing the route of Alexander the Great; he reached Mosul

in March 1866. He is among the travelers named on one of Heinrich Kiepert's maps drawn in 1886 for Sterrett [II = **Fig. 58**]. The *KvK* brochure recognizes his assistance in mapping the south-east. [Broc (1992) 288–90; Débarre (2016) index]

van Lennep, Henry J. (1815–1889) *SpecK* (1890) 5; (1891) 2; IX [Lp]; *KvK* BIV, BV, CII [v.L.]

Member of a long-established Dutch family at Smyrna, whose extensive commercial contacts with the United States led to him being educated there. He was based twice as a missionary at Smyrna (1840–1843, 1863–1869), also at Constantinople (1844–1854) and Tokat (1854–1856). He traveled extensively in Asia Minor. The record of the western part of the 1864 journey published in his book *Travels in Little-Known Parts of Asia Minor* (London: Murray, 1870) proved no more than marginally useful to Heinrich Kiepert for *SpecK* VIII and IX. Heinrich considered that Lennep's calculations of spot-heights were too high (as emerged when comparison with more reliable travelers' figures was possible). In his book (iii–iv), Lennep specifically comments that his barometer remained accurate even after 41 days' travel on horseback — seemingly an over-optimistic claim. [DAB]

Leonhard, Richard (1870–1916) *KvK* brochure (1929 only), AII, AIII, AIV, BII, BIII [Le(o)(n).]

German geographer and geologist who explored Paphlagonia in 1899, 1900 and 1903. Richard Kiepert produced a map at 1:400,000 scale lithographed in two formats (topographic, geological) for Leonhard's book *Paphlagonia, Reisen und Forschungen im nördlichen Kleinasien* published in 1915 [**Figs. 43**, **44**]. However, the map was produced much earlier: Richard's explanatory text in the book (161–63) is dated March 1908. [Robert (1980) 54; not in NDB. Note Leonhard's obituary of Richard Kiepert in *Pet Mitt* 61 (1915) 409]

Löwy, Emanuel (1857–1938) *KvK* brochure, DII [Lö.]

Austrian classical archaeologist and art historian who accompanied Benndorf and others in Lycia during 1881–1882. According to the *KvK* brochure, Heinrich Kiepert made and published maps for him; if there were any beyond those noted s.v. Benndorf, I have yet to find them. [ÖBL]

von Luschan, Felix (1854–1924) *SpecK* (1890) 4; XII [L(u)]; *KvK* brochure, CIII, CV, DII, DIII, DIV [Lu.]

Austrian doctor and anthropologist who traveled in Lycia with Benndorf and Lanckoroński, 1881–1882. In 1883 he participated (with Humann

and Puchstein) in an expedition to Nemrut Dağ. For maps drawn by Heinrich Kiepert, see ss.vv. Benndorf, Puchstein. [ÖBL]

Lynch, Henry F. B. (1862–1913) *KvK* BVI, CV, CVI, DV [Ly.]

Anglo-Irish independent businessman of Armenian descent on his mother's side, who explored and mapped extensively in eastern Asia Minor, Armenia and Mesopotamia during the 1880s and 1890s. [ODNB; Fischer (1920) 165; Mitford (2018) index]

Maercker, G. *KvK* AIV, BIII, BIV [Mae.]

German officer who explored the Kızılırmak (ancient Halys) river basin in 1893 with von Flottwell, Kannenberg and von Prittwitz und Gaffron. [Robert (1980) 30–31]

Mandrot, Bernard Edouard (1848–1920) with Favre: *KvK* DIV [F.u.M.]

French scholar with an interest in archaeology who undertook an expedition to Cilicia with Favre (see s.v.) in 1874. [WBIS]

von Marées, Walter (1869–1908) with Janke: *KvK* BI [Ja.]

German lieutenant who in 1902, as a member of the group headed by Janke, traveled from south-east to north-west in Asia Minor to study Alexander the Great's route and to reconsider where the battles of Issus and Granicus were fought. Marées contributed the photographs and plans for Janke's book *Auf Alexanders des grossen Pfaden: eine Reise durch Kleinasien* (1904). [WBIS]

Mathieu *KvK* brochure

The *KvK* brochure recognizes him, among other engineers, for assistance in mapping the south-west.

Maunsell, Francis R. (1861–1936) *KvK* brochure, CVI [Mau.]

British officer frequently engaged in intelligence work and survey, responsible for the IDWO 1522 map series, and recognized by the *KvK* brochure for his assistance in mapping the north-east. He held consular posts here during the 1890s, was then military attaché in Constantinople (1901–1905), and later served under the Director of Military Operations, War Office (1907–10). [WBIS; Fischer (1920) 165; Peter Collier, "Covert Mapping of the Ottoman Empire: The Career of Francis Maunsell" in M. F. Burchroithner (ed.), *Proceedings of the 26th International Cartographic Conference* (Dresden, 2013); Foliard (2017) 202–204 (less reliable)**;** Mitford (2018) 3, 579 and index; *Forgotten* II.11; not in ODNB]

Mircher, Hippolyte Etienne Alphonse (1820–1878) with Saget: *KvK* brochure, AV, AVI, BV, BVI [M.u.S.]

French officer assigned in 1855–1856 to assist with fixing the border between the Ottoman empire and Russia, and to prepare a report on Anatolia. The Kiepert-Zimmer held a copy — made by Heinrich Kiepert in October 1879 from the original manuscript at the French ministry of foreign affairs, Paris — of "Itinéraire de la route d'hiver de Trébizonde à Erzeroum du 4 au 15 mai 1856 par les capitaines d'état major Mircher et Saget" at 1:160,000 scale (#5742, p. 328). For two colored maps by Mircher ("L'empire ottoman d'Asie, l'Anatolie: Arménie, Kurdistan, Lazistan)," dated May 25, 1856, together with a report on the military situation in Anatolia, see Spiridonakis (1973) 205. The *KvK* brochure recognizes Mircher and Saget for assistance in mapping the north-east. [WBIS; Daniel Furia, *Le général Mircher (1820–1878)* (Paris: L'Harmattan, 2008) 31–33 (very brief)]

Möllhausen *SpecK* (1890) 4; VIII, IX [M]; *KvK* brochure, CII [Mö.]

Senior engineer of the SCP. For *SpecK* VIII and IX, Heinrich Kiepert used maps he shared of areas east of the railroad: on these the course of the Hermos river was followed to Ushak, and two different routes between Akschehir and Afiûn-Karahissâr were marked out. The Kiepert-Zimmer held his 1:200,000 scale map "Alasheir-Afium Karahissar" dated November 1886 (#5394, p. 310); also his 1:180,000 scale "Plan des Vallées du Juediz et du Yureh-Schai" (#4806/36, p. 271). Although successive extensions of the SCP line were opened from Alasheir to Ushak, and thence to Afyon, in 1887 and 1890 respectively, neither is shown on *SpecK* VIII and IX, a puzzling oversight. The *KvK* brochure recognizes Möllhausen, among other engineers, for assistance in mapping the south-west. [WBIS]

von Moltke, Helmuth (1800–1891) *SpecK* (1890) 3–4; *KvK* AIV, BIV, BV, CIII, CIV (ed. 2), CV, CVI, DV, DVI [Mo/v.M.]

Prussian officer who conducted a military mission based at Constantinople, 1836–1839 (with fellow officers Fischer, Mühlbach, and von Vincke from 1837). In his Begleitworte for *SpecK*'s first instalment (1890) Heinrich Kiepert mentions these officers' gift to him of their materials for mapping Asia Minor half a century before, as well as noting that Moltke — now very famous — was the only one of them still living (he died the following year). Maps drawn by Heinrich from 1843 showed Moltke's routes: see Zögner (1999) #42, 44, pp. 83–84. His journeys in Asia Minor during 1838–1839 are outlined in Débarre (2016) Illustration 4, p. 378. For *SpecK*, Heinrich also consulted Moltke's plan of the Bosphorus area made in 1838. [NDB; Zögner (1999) index; Débarre (2016) index; Mitford (2018) index]

Mordtmann, Andreas-David (1811–1879) *SpecK* (1890) 5–6, 8; *KvK* BII [Mo.]

German orientalist and diplomat resident in Constantinople from 1846 till his death in 1879. Heinrich Kiepert appreciated being given access to his complete manuscript travel records, but seldom found them useful for *SpecK* because of their inaccuracy and scant attention to topography. He lists the abbreviation Mo for Mordtmann on *SpecK* but seems never to use it. [NDB; Débarre (2016) index]

Moritz, Bernhard (1859–1939) *SpecK* (1890) 7; *KvK* CV, DIV, DV [Mor.]

German orientalist and archaeologist active in Arabia, Iraq and Syria during the 1880s and 1890s. For *SpecK* I–VI and IX, he and Hartmann helped Heinrich Kiepert to decipher almost illegible placenames in official lists carelessly handwritten in tiny Turkish cursive. For a 1:300,000 scale map of northern Syria drawn by Heinrich, and published in 1890, that took account of Moritz's findings together with those of Hartmann, Humann and Puchstein, see s.v. Puchstein below. [NDB; Zögner (1999) #513, p. 129]

Mosca, S. *KvK* brochure, BI [Mo.]

The *KvK* brochure recognizes him, among other engineers, for assistance in mapping the north-west. The Kiepert-Zimmer held his 1:100,000 scale map of the track (*sentier*) from Balia-Madem to the Mandjilik lignite mine, drawn around 1890, together with related maps by Gölher and Dell'Agnola (#5392 with title in French, p. 310).

von Mühlbach, Traugott Wilhelm Heinrich (1794–1848) *KvK* CVI [Mü.]

Prussian officer who went on von Moltke's mission, 1837–1839. His journeys in Asia Minor during 1838–1839 are outlined in Débarre (2016) Illustration 4, p. 378. [WBIS; Débarre (2016) index]

Munro, John A. R. (1864–1944) with Hogarth: *KvK* BV [Hog.u.Mu.]

British archaeologist and epigrapher who traveled with Gregorios Antoniou and Hogarth in eastern Asia Minor in 1891. [Gill (2011) 367–68 and index; Mitford (2018) index; not in DBC or ODNB]

Murphy, H. F. *KvK* CIV, DIV [Mu.]

British officer in the Royal Engineers and astronomer on Chesney's expedition to test the navigability of the Euphrates, 1835–1837. [J. S. Guest, *The Euphrates Expedition* (London: Kegan Paul, 1992) index; Débarre (2016) index; not in ODNB]

Muzaffer Pascha = Czaykowski, Ladislas (died 1907) *KvK* brochure (1929 only)

Polish-born Ladislas Czaykowski became an Ottoman official and served as governor-general of Mount Lebanon from 1902 to 1907. The *KvK*

brochure recognizes his assistance in mapping the south-east. [WBIS s.v. Czaykowski]

Myres, John L. (1869–1954) with Paton: *KvK* CI [name misspelled Myers], DI [Pa.]

British ancient historian and archaeologist who surveyed the Bodrum peninsula with Paton in 1893. Their "Map of Part of Karia" at 1:250,000 scale (*Journal of Hellenic Studies* 16 [1896] Plate X) was "Based on Kiepert's Map" (i.e. *SpecK*). [ODNB; DBC; GBBS 16 (1995) 53–62; Gill (2011) 211, 368–70 and index]

Naab, Jakob Paul (1872–1954) *KvK* CVI (ed. 2) [Na.]

German doctor at the Deutsche Orientmission in Diyarbakır, 1901–1914. [www.wiesbaden.de/microsite/stadtlexikon/a-z/naab-jakob-paul.php]

Naumann, H. Edmund (1854–1927) *KvK* brochure, BI, BII, BIII, BIV, CIV, CV, CVI [Na(u).]

German geologist — best known for his earlier work in Japan — who traveled extensively in Asia Minor during the 1880s, with particular concern for the route of the proposed Baghdad railroad. The *KvK* brochure acknowledges the improved (?) versions of some of Hamilton's original drawings — with extensive coverage across Asia Minor — made by him and Stewart. [Robert (1980) 49; not in NDB]

Newton, Charles T. (1816–1894) *SpecK* (1890) 5; *KvK* DI [Ne.]

From 1852 to 1859 British vice-consul at Mytilene, who explored and excavated in western Asia Minor and the Aegean, most notably at Halicarnassus. However, according to Heinrich Kiepert, his publications focused exclusively on archaeology, not topography. [ODNB; DBC]

Niemann, Georg (1841–1912) *KvK* DII [Ni.]; with Benndorf: *SpecK* (1890) 4; (1891) 1; XI [B]; *KvK* AIV, DII [B.N.]

German-Austrian archaeologist and architect who traveled and excavated in Lycia (with Benndorf and Petersen) and western Asia Minor during the 1880s and 1890s; see further s.v. Benndorf. With Petersen, he co-authored Karl Lanckoroński, *Städte Pamphyliens und Pisidiens* (1890–1892). [ÖBL; Débarre (2016) index]

Oberhummer, Eugen (1859–1944) with Schlagintweit: *KvK* CII [Ob.]

German-Austrian ancient historian and geographer who traveled in western Asia Minor with Schlagintweit in 1897. [ÖBL; Fischer (1920) 87; GBBS 7 (1983) 93–100]

Oberhummer, Roman (1844–1905) *KvK* BIV, CIII, CIV [Ob(erh).]; with Zimmerer: BIII [Ob.]

Eugen's brother who traveled through Syria, Palestine, and Asia Minor with Zimmerer in 1896. Presumably the routes that *KvK* attributes to "Oberhummer" alone are ones taken by Roman rather than Eugen. Roman and Zimmerer were in touch with Heinrich Kiepert before they set out in 1896: see the Vorwort to their book *Durch Syrien und Kleinasien: Reiseschilderungen und Studien* (Reimer: Berlin, 1899). [Fischer (1920) 87; not in ÖBL]

Ogilvy *SpecK* (1890) 5; *KvK* brochure, CI [Og.]

The *KvK* brochure recognizes him, among other engineers, for assistance in mapping the south-west. Heinrich Kiepert refers to him as a "Dr." who had drawn a map of part of the lower Maeander in 1869, brought to his attention by George Dennis, British consul-general at Smyrna.

Olivier, Guillaume-Antoine (1756–1814) *KvK* [DIII]

French entomologist and naturalist who received state funding for travel in the Ottoman empire and Persia to study their natural history. For this six-year expedition (1792–1798) he was accompanied by fellow expert Jean-Guillaume Bruguière (b. 1749), who died at Ancona on the homeward journey (October 1798). For the route they took north from Celindro/Celenderis the previous month, *KvK* DIII cites Wrontschenko and Fischer as informants in its standard style (cf. **Fig. 57**), but also adds — exceptionally — the full names Kinneir, Leake, Olivier along it. For the latter's record of this route, see his *Voyage dans l'empire Othoman, l'Égypte et la Perse*, vol. 6 (Paris: Agasse, 1807) 379–87 and map (**Fig. 45**). [P. Bernard, "Le *Voyage dans l'empire Othoman, l'Égypte et la Perse* de Guillaume-Antoine Olivier, naturaliste et envoyé de la République (1792–1798)," *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 141.4 (1997) 1157–244 at 1214–17]

von Oppenheim, Max (1860–1946) *KvK* CVI, DV, DVI [Op.]

German independent traveler who in the 1890s undertook two journeys of exploration ranging from southern Turkey through the Syrian desert and as far as the Persian Gulf. Richard Kiepert contributed maps with accompanying detailed Begleitworte (vol 2, pp. 391–414) to his two-volume *Vom Mittelmeer zum Persischen Golf durch den Haurän, die Syrische Wüste und Mesopotamien* (1899–1900) [**Fig. 46a**, **b**]. [NDB]

Parry, Oswald Hutton (1868–1936) *KvK* CVI [Pa.]

Anglican clergyman and classicist who traveled to northern Mesopotamia in 1892 to inspect the work of the Syrian Patriarchate Educational Society. The 1:600,000 scale map "Jebel Tur in the north east corner of

Mesopotamia" in his book *Six Months in a Syrian Monastery* (1895) was drawn from surveys made by Andrus. [WBIS; Gill (2011) 372; not in ODNB]

Paton, William R. (1857–1921) *KvK* CII [Pa.]; with Myres: CI, DI [Pa.]

British classicist and epigrapher who lived and traveled extensively in the eastern Aegean from the 1880s until his death in 1921. He surveyed the Bodrum peninsula with Myres in 1893. [ODNB; DBC; Fischer (1920) 86; Gill (2011) 211 and index]

Penther, Arnold (1865–1931) *KvK* CIV (ed. 2) [Pen.]; see Hartmann (1913) 75–76

Austrian zoologist at the Hofmuseum, Vienna, who explored and mapped Hasan Dağ (ancient Argaeus Mons) south of Kayseri in 1902. His account, with map at 1:80,000, *Eine Reise in das Gebiet des Erdschias-Dagh (Kleinasien)* was published in *Abhandlungen der K. K. Geographischen Gesellschaft*, Wien, 6 (1905) no. 1. [ÖBL]

Perrot, Georges (1832–1914) *SpecK* (1890) 5; III, V, VI, VIa, VIII [P(e)]; *KvK* AII, AIII, BI, BII, BIII, BIV [Pe.]

French archaeologist who — with the architect Edmond Guillaume — traveled in Bithynia and Galatia in 1861–1862, supported by Napoleon III. He is among the travelers named on one of Heinrich Kiepert's maps drawn in 1886 for Sterrett [IV = **Fig. 60**], and Heinrich acknowledges use of his data for the easternmost parts of *SpecK* III and VI. [*Dictionary of Art Historians*; Robert (1980) 47–48; A. E. Cooley, Res Gestae Divi Augusti: *Text, Translation, and Commentary* (Cambridge: Cambridge University Press, 2009) 45]

Petersen, A. H. Eugen (1836–1919) *SpecK* (1890) 4; *KvK* brochure, DII [Pe.]

German archaeologist who traveled and excavated in Lycia with Benndorf and Niemann, 1882–1885. With Niemann, he co-authored Karl Lanckoroński, *Städte Pamphyliens und Pisidiens* (1890–1892). [NDB; Débarre (2016) 291]

Philippson, Alfred (1864–1953) *KvK* brochure (1929 only); BI (ed. 2), CI (ed. 2) [Ph(i).]; see Hartmann (1913) 75–76

German geologist and physical geographer who traveled extensively in western Asia Minor, 1900–1904. On *KvK* CI (ed. 2) Richard Kiepert appends to his name the note: "Dessen zahlreiche Routen wurden nur an einzelnen Stellen berücksichtigt, wo sie nicht mit den älteren sehr sorgfältigen von Heinrich Kiepert, K. Humann, K. Buresch und anderen zusammenfullen." Without doubt, Philippson's own impressive topographical and geological maps of western Asia Minor — each issued

in six sheets by Perthes (Gotha) between 1910 and 1914 — were intended to outclass Heinrich Kiepert's *SpecK* and Richard's *KvK* in many respects. However, their coverage does not extend quite as far east as *SpecK*, and the scale is somewhat smaller (1:300,000 rather than 1:250,000). For accompanying text by region (with geology the primary focus), see Philippson's *Reisen und Forschungen im westlichen Kleinasien mit geologischen Karten* in *Pet Mitt Ergänzungshefte* 167, 172, 177, 180, 183 (1910–1915). [NDB; Robert (1954) 448 (with some comparison); GBBS 13 (1991) 53–61; *Forgotten* V.43]

von Premerstein, Anton (1869–1935) with Keil: *KvK* BI (ed. 2) [K.u.v.Pr.]; see Hartmann (1913) 75–76

Austrian ancient historian and epigrapher who traveled in Asia Minor with Keil while based at the Austrian Institute of Archaeology at Athens (1906–1912). [NDB]

Pressel, Wilhelm (1821–1902) *SpecK* (1890) 4, 8; (1891) 1

Prominent German railroad builder and promoter who from 1873 arranged for Heinrich Kiepert to be provided with copies of surveys and plans for many routes held by the Ottoman ministry of public works, including Mudania-Brussa-Eskischehir-Kiutahia-Afiunkarahissar-Akschehir. On Heinrich's 1:1,500,000 *Nouvelle Carte générale des provinces asiatiques de l'empire Ottoman (sans l'Arabie)* dated 1883 and published the following year, he is among the informants whose help is recognized (see box top right). Route data from him is likewise acknowledged on map III that Heinrich drew for the *Atlas* accompanying C. Humann and O. Puchstein, *Reisen in Kleinasien und Nordsyrien* (1890) [**Fig. 50**]. Again, for *SpecK* VI, VIa and IX Heinrich valued survey materials supplied by Pressel. [NDB; Débarre (2016) 278, 288; cf. Kiepert-Zimmer #4806, p.269]

Preusser, Richard *KvK* brochure (1929 only), AII, AIII, BII, BIII [Pr.]

Head of the German school at Haydarpaşa. Itineraries that he recorded in 1906 were used by Richard Kiepert in the production of the topographic map for Leonhard's book *Paphlagonia, Reisen und Forschungen in nördlichen Kleinasien* (1915), as Richard states in his contribution to it (p. 163), written in 1908 (see **Fig. 43**). The *KvK* brochure recognizes his assistance in mapping the north-west. [Kornrumpf (1998); Robert (1980) 54 n. 325]

von Prittwitz und Gaffron, Georg (1861–1936) *KvK* BIII, BIV [Pr(i).]; with von Flottwell: AIV [Pr.]

German officer who explored the Kızılırmak (ancient Halys) river basin in 1893 with von Flottwell, Märcker, and Kannenberg. He contributed to

the latter's *Kleinasiens Naturschätze* (1897, see s.v.). [Robert (1980) 30–31]

von Prokesch-Osten, Anton (1795–1876) *KvK* BI [Pr.]

Austrian officer and diplomat who traveled in Asia Minor during the 1820s, and was ambassador in Constantinople, 1855–1871. [ÖBL s.v. Prokesch von Osten; Cook (1973) 31; Débarre (2016) index]

Puchstein, Otto (1856–1911) *KvK* CV, CVI, DV [Pu.]

German art historian who traveled in Syria in 1882, and headed (with Humann and von Luschan) an expedition to Nemrut Dağ in 1883. In *Globus* 43 (1883) Heinrich Kiepert published "Dr. O. Puchstein's archäologische Reise im nördlichen Syrien, I" accompanied by a map [**Fig. 47**]. Later, Kiepert contributed a section "Zu den Karten" (407–12, dated December 1889) to C. Humann and Puchstein, *Reisen in Kleinasien und Nordsyrien* (1890), as well as three maps to the accompanying *Atlas* [**Figs. 48–50**]. [NDB; Zögner (1999) #464–66, pp. 124–25; #513, p. 129; Débarre (2016) index; Mitford (2018) 1, 579 and index]

Purser, Edward (1821–1906) *SpecK* (1890) 4–5; IX [Pu]; *KvK* CII [Pu.]

Irishman based at Smyrna as general manager and chief engineer of the ORC, 1859–1900. He was among the railroad officials (together with Kemp, von Kühlmann and Pressel) who provided copies of surveys and plans used by Heinrich Kiepert for *SpecK*. The Kiepert-Zimmer held three manuscript sheets of "Materialien zu Edward Pursers Routen in Kleinasien 1865" (#4804, p. 267). In all likelihood these recorded Purser's reconnaissance made that year (and used for *SpecK* IX) of two main routes between Dinêr (from 1889 to 1912 terminus of the ORC's line) and Afiûn-Karahissar (in fact a line connecting these two places was not built until the 1930s). [*Grace's Guide to British Industrial History*; Débarre (2016) 288; not in ODNB]

von Quast[-Radensleben], Siegfried (1842–1887) *KvK* BIII [Qu.]

Siegfried and his younger brother Wilhelm Alexander (Prussian officer, 1849–1919), cousins of Walther von Diest, traveled in Asia Minor in 1887. During that time Siegfried died of peritonitis at Eskişehir, and their findings were apparently never published. [Robert (1980) 30 n. 144; neither in NDB]

Radet, Georges (1859–1941) *KvK* BII, CII [Rad.]

French historian and epigrapher who traveled widely in Asia Minor from 1885 to 1887 and again in 1893. [obituary in *Revue Archéologique* 19 (1942–1943) 37–40; Robert (1980) index]

Ramsay, William M. (1851–1939) *SpecK* (1890) 4–5; (Nov. 1890); (1891); VIa, VIII, IX, XI, XII [R(a)]; *KvK* BII, BIII, CII, CIII, CIV, CV, DII, DIII [Ra(m).]

Scottish classicist, epigrapher and archaeologist, who traveled in central Asia Minor annually 1881–1890 and 1900–1914. To assist Heinrich Kiepert with *SpecK*, Ramsay entrusted to him his manuscript diaries of travels during five summers over the Phrygian plateau from Eskischehir in the north as far south as the frontier mountains of Lycia, used for VI, IX and XII, as well as for the eastern parts of VIII and XI. However, Heinrich reacted sceptically to some of Ramsay's proposed ancient names for sites with ruins. [ODNB; DBC]

Rey, Alban Emmanuel Guillaume (1837–1916) *KvK* DIV [Re.]

French archaeologist, cartographer and orientalist who — with government funding — traveled extensively in Syria, Lebanon and Palestine between 1857 and 1865. [WBIS; presumably Zögner (1999) 167, if his index slips in expanding E. G. to Ernest George]

von Richter, Otto Friedrich (1791–1816) *KvK* CIII, DIII [Ri.]

Estonian-German classicist and orientalist who traveled in Egypt, Syria and Asia Minor, 1815–1816; he died at Smyrna in August 1816. [Cook (1973) 30; Robert (1980) 365 n. 22; not in NDB]

Rivet, A. *KvK* brochure, AIV, AV, BIV, BV [Riv.]

The *KvK* brochure recognizes him, among other engineers, for assistance in mapping the north-east. The Kiepert-Zimmer held a manuscript of his 1:200,000 scale map "Plan de la route de Samson à Sivas de la partie de cette route comprise dans le Vilayet de Sivas," dated 1881 (#5672, p. 325); also his map of the stretch from Kerasund to Karahissar (#4806/32, p. 271; cf. #5534, p. 316).

Römer *KvK* brochure, DIII, DIV [Rö.]

The *KvK* brochure recognizes him, among other engineers, for assistance in mapping the south-east. The Kiepert-Zimmer held a manuscript of his 1:300,000 scale map of the stretch Selefke to Mut (which he had surveyed at 1:50,000), made around 1885 (#5675/20, p. 324).

Rössler, Walter (1871–1929) *KvK* DV (ed. 2) [Rö.]

German vice-consul in Jaffa, 1904–1908, consul in Aleppo, 1910–1918. [Kai Seyffarth, *Entscheidung in Aleppo. Walter Rößler (1871–1929), Helfer der Verfolgten Armenier* (Bremen: Donat, 2015)]

Rohnstock, F. *KvK* BII [Ro.]

In Turkey from about 1860, serving as secretary at the German Consulate-General in Constantinople, and as harbor master (1882). The (only ?) book he published *Volkswirthschaftliche Studien über die Turkei, Salonik und sein Hinterland* (Constantinople: Lorentz & Keil, 1886), is beyond *KvK*'s scope. [WBIS; missing from *Biographisches Handbuch des deutschen Auswärtigten Dienstes 1871–1945*]

Rosazza *KvK* brochure

The *KvK* brochure recognizes him, among other engineers, for assistance in mapping the north-west. The Kiepert-Zimmer held a manuscript of his 1:200,000 scale map of the stretch Angora to Basriköi (which he had surveyed at 1:50,000), made around 1890 (#5403, p. 311).

Ruge, Walther (1865–1943) *KvK* BI, CI [Ru.]

German historical geographer, cartographer and teacher who traveled in western Asia Minor in 1890. He published four maps (1:250,000) with accompanying text to document his route: *Reisen und Aufnahmen in Klein-Asien 1890* (Gotha: Perthes, 1892). Despite continuing to write extensively about Asia Minor (entries in *RE* especially), he does not seem to have traveled there otherwise. [WBIS]

Russegger, Joseph (1802–1863) *KvK* CIV, DIV [Ru.]

Austrian geologist who explored in Cilicia and Syria with Kotschy during 1836–1837. [ÖBL; Débarre (2016) 268]

Russische Offiziere *SpecK* (1890) 3–4; *KvK* AVI, BVI [Ru.]

For *SpecK*, Heinrich Kiepert valued Wrontschenko's data, but complained that further Russian military mapping had been kept secret and thus remained inaccessible. The *KvK* brochure (1901 only) also remarks upon Russian secrecy. The Kiepert-Zimmer held "Briefe und Tabellen des russ. Kriegsministeriums für Richard Kiepert 1900/1901"; some of this material survives. [Zögner (1999) 166]

Sachau, Eduard (1845–1930) *KvK* brochure, CV, CVI, DV, DVI [Sach.]

German professor of Oriental languages, who made several journeys to Syria and Mesopotamia between the 1870s and 1890s. Heinrich Kiepert, his Berlin colleague, drew two maps [**Figs. 51**, **52**] for his 1880 study (following exploration that year) "Ueber die Lage von Tigranokerta," and two more [**Figs. 53**, **54**] for his book *Reise in Syrien und Mesopotamien* (1883). [DBE; Zögner (1999) #421, p. 121]

Saget, M. with Mircher: *KvK* brochure, AV, AVI, BV, BVI [M.u.S.]

French officer assigned — with Mircher — in 1855–1856 to assist with fixing the border between the Ottoman empire and Russia, and to prepare a report on Anatolia — presumably the one dated April 1857 in Spiridonakis (1973) 205. The Kiepert-Zimmer held a copy — made by Heinrich Kiepert in October 1879 from the original manuscript at the French ministry of foreign affairs, Paris — of "Itinéraire de la route d'hiver de Trébizonde à Erzeroum du 4 au 15 mai 1856 par les capitaines d'état major Mircher et Saget" at 1:160,000 scale (#5742, p. 328). Saget was evidently in Trabzon earlier too, because the Kiepert-Zimmer held a copy — again made by Heinrich Kiepert in October 1879 as immediately above — of "Reconnaissance des environs de Trébizonde par Saget, cap. Ingn.," dated 1854 at 1:50,000 scale (#5743, p. 328). The *KvK* brochure recognizes Mircher and Saget for assistance in mapping the north-east. [WBIS]

Sandreczki, Carl (1810–1892) *KvK* CVI [Sa.]

German from a family of Polish origin who in 1850 undertook an extensive journey in the Middle East for the (Anglican) Church Missionary Society, and thereafter was the Society's secretary in Jerusalem for over thirty years. His account of the journey *Reise nach Mosul und durch Kurdistan nach Urumia* was published in 1857 (Stuttgart: Steinkopf). [WBIS; Shemuel Nissan and Petra Martin, "Die Marienstift-Kinderhospital in Jerusalem (1871–1899)," *Historia Hospitalium* 20 (1995–1997) 162–94 at 165, 167; Zögner (1999) 50; not in NDB]

Sarre, Friedrich (1865–1945) *KvK* CII, CIII [Sa.]

German archaeologist and pioneer orientalist who traveled and excavated in Phrygia, Lycaonia and Pisidia during 1895–1896. For his book *Reise in Kleinasien, Sommer 1895: Forschungen zur seldjukischen Kunst und Geographie des Landes* (1896), Richard Kiepert drew a map "Dr. F. Sarre's Reise in Phrygien, Lykaonien, Isaurien und Pisidien 1895" (1:300,000), with inset of his routes north-east from Konia (1:600,000) [**Fig. 55**], and an explanatory text (pp. 185–86). Naturally enough, Richard took the inset into account when constructing *KvK* CIII [1901], but was later faulted by Ramsay (1906, 254, quoted above) for inaccuracy here [**Fig. 17**]. [DBE; Oya Pancaroğlu, "A Fin-de-Siècle Reconnaissance of Seljuk Anatolia: Friedrich Sarre and his *Reise in Kleinasien*." In Zainab Bahrani et al., eds., *Scramble for the Past: A Story of Archaeology in the Ottoman Empire, 1753–1914*, 399–415. Istanbul: SALT/Garanti Kültür, 2011]

Schaeffer *KvK* AIII, AIV, BIII, BIV [Schae.]

German officer who retraced in 1894 the route in the Kızılırmak (ancient Halys) river basin taken by von Flottwell, Kannenberg, Märcker and von Prittwitz und Gaffron in 1893. He contributed to Kannenberg's *Kleinasiens Naturschätze* (1897, see s.v.). [Robert (1980) 30–31]

Schaffer, Franz Xavier (1876–1953) *KvK* brochure (1901 only), CIV, DIV [Scha.]

Austrian geologist, also interested in antiquity, who explored Cilicia in 1900–1901. The *KvK* brochure recognizes his assistance in mapping the south-east. [WBIS; Fischer (1920) 87]

Schlagintweit, Max (1849–1935) with Eugen Oberhummer: *KvK* CII [Ob.]

German officer who traveled in western Asia Minor with Eugen Oberhummer in 1897. [Kornrumpf (1998)]

Schliemann, Heinrich (1822–1890) *SpecK* (1890) 5, 8; IV [Sl]

Famous excavator of Troy in the 1870s and 1880s. Schliemann's sketch-map of the Troad, however, Heinrich Kiepert dismissed as worthless except for some spot-heights (marked on *SpecK* IV), and even these he thought might be inaccurate.

Schmidt, Julius (1825–1884) *SpecK* (1890) 8; IV [Sch (in Troad)]

German astronomer and geophysicist who was director of the National Observatory, Athens, from 1858 until his death, and explored the Troad with Schliemann. Spot-heights there calculated by Schmidt are marked on *SpecK* IV.

Schönborn, August (1801–1857) *SpecK* (1890) 3, 5; *KvK* CI, CII, CIII, DII, DIII [Schö.]

Prussian classicist who traveled in western Asia Minor with Heinrich Kiepert in 1841, and in Lycia with Löw in 1842 (also in 1851). The journeys during 1841–42 are outlined in Débarre (2016) Illustration 8, p. 383. Maps drawn by Kiepert from 1844 took account of Schönborn's findings: see Zögner (1999) #44–45, p. 84; #459, p. 124; #486, p. 127. [Robert (1954) 59–61; Débarre (2016) index; not in NDB]

Schröder, Paul Gustav Albert (1844–1915) *KvK* DV [Schr.]

German orientalist and diplomat based in Constantinople (1869–1882, 1885–1888) as dragoman (interpreter), and in Beirut (1882–1885, 1888–1909) as consul. He traveled extensively in the Levant and Cyprus, informing Heinrich Kiepert in detail about his findings on the island in 1870 and 1873. While dragoman, he assisted in providing Heinrich with copies of surveys made for railroads in south-east Asia Minor, held by the Kiepert-Zimmer (#4806, p. 269). It also held a manuscript map

drawn by Richard Kiepert of Schröder's route in Mesopotamia in 1890 (#6191, p. 358). [NDB]

Schuchhardt, Carl (1859–1943) *SpecK* IV [Sch (Pergamum area)]; *KvK* CI [Schu.]

German archaeologist who traveled in Asia Minor (1886–1887) and participated in Humann's excavations at Pergamum; he met Heinrich Kiepert there in 1886. [NDB; Zögner (1999) 68–69; Débarre (2016) 289]

Scidune *KvK* brochure

The *KvK* brochure recognizes him, among other engineers, for assistance in mapping the south-west.

Seiff, Friedrich Julius (1821–1875) *KvK* CIV, DIV, DV [Se.]; with Davis: *SpecK* (1890) 5; *KvK* brochure, CII, DII [D.u.S.]

German civil engineer from Dresden who explored Pisidia with Davis (see s.v.) in 1872, and also visited northern Syria. In 1875 he published *Reisen in der asiatischen Türkei* (Leipzig: Hinrichs). Heinrich Kiepert was sceptical about the accuracy of measurements recorded by Davis and Seiff. [WBIS; Robert (1954) 64; not in NDB]

Sette *KvK* brochure

The *KvK* brochure recognizes him, among other engineers, for assistance in mapping the north-west. Staatsbibliothek Berlin holds his manuscript 1:100,000 scale map from the Kiepert-Zimmer, "Isnik-Gemlek" dated July 1890 (#5613, p. 320).

Simon[is], Paul Müller- (1862–1930) *KvK* BV [Si.]

The individual identified only as "Simon" is no doubt the independently wealthy Alsatian Catholic priest who — with his friend the orientalist Henri Hyvernat — made a journey in 1888 described in detail in his book *Du Caucase au Golfe Persique à travers l'Arménie, le Kurdistan et la Mésopotamie* (Washington: Université Catholique d'Amérique, 1892). The book is illustrated by a map at approximately 1:1,550,000 scale, and reports (pp. 599–604) on using Heinrich Kiepert's *Nouvelle carte générale des provinces asiatiques de l'Empire ottoman* (Berlin: Reimer, 1883–1884). [WBIS s.v. Simonis; Zögner (1999) 167]

Smith, Arthur Hamilton (1860–1941) *SpecK* (1890) 3–4; XI, XII [Sm]; *KvK* BII, CII, DII [Sm.]

British archaeologist who in 1884 accompanied Ramsay's exploration of the Maeander river valley, and also traveled in the upper Hermos region. Heinrich Kiepert especially valued his findings for *SpecK* V, VI, VIII and

IX. In addition, eleven unpublished measurements of latitude made by Smith were shared with Heinrich. [ODNB; DBC]

Smith, Eli (1801–1857) *KvK* DIV, DV [Sm.]

American missionary scholar who traveled through Asia Minor, Armenia and Georgia to Persia in 1830–1831, assessing the prospects for establishing mission stations. Maps drawn by Heinrich Kiepert from 1840 onwards took account of his findings (especially those made in Palestine with Edward Robinson in 1838): see Zögner (1999) #24, p. 81. [DAB; Zögner (1999) index; Débarre (2016) 103, 254; Mitford (2018) index]

Socin, Albert (1844–1899) *KvK* CVI, DV [So.]

Swiss-German orientalist and philologist who traveled widely in the Levant during the late 1860s and early 1870s. [DBE; Zögner (1999) 168]

Sperling, Emil (1819–1863) *KvK* brochure, BII, CII, DIII [Sp.]

Interpreter at the Prussian embassy in Constantinople, who traveled in Asia Minor between 1856 and his death in 1863. Heinrich Kiepert produced a map to accompany the record of his final journeys (1862), published posthumously [**Fig 56**]. [*Rheinland-Pfälzische Personen-datenbank*, rpb.lbz-rlp.de; Zögner (1999) 101; Débarre (2016) index]

Spratt, Thomas A. B. (1811–1888) *SpecK* (1890) 4; XII [Sp]; with Daniell and Forbes: *KvK* DII [Da.]

British naval officer and hydrographer who surveyed in the Mediterranean from the 1830s to 1860s. In 1842 he explored Xanthos and other ancient cities in southern Asia Minor with Daniell and Forbes. Maps drawn by Heinrich Kiepert from 1844 took account of his findings: see Zögner (1999) #44–45, p. 84; #459 p. 124; #486 p. 127. [ODNB; Débarre (2016) index]

Sterrett, John R. Sitlington (1851–1914) *SpecK* (1890) 4; (Nov. 1890); XII [St]; *KvK* BII, BIII, BIV, CII, CIII, CIV, CV, DIII, DIV, DV [St(er).]

American classicist and epigrapher who traveled widely in Asia Minor during the 1880s. Heinrich Kiepert contributed maps (two in each instance) to the records of his journeys in 1884 [II, III] and 1885 [I, IV] [**Figs. 57–60**] published by the American School of Classical Studies at Athens in June 1888 and March 1888 respectively. [DAB; Robert (1954) 66; S. L. Dyson, *Ancient Marbles to American Shores* (Philadelphia: University of Pennsylvania Press, 1998) 65–67; Zögner (1999) #497, p. 127]

Stewart, John Donald Hamill (1845–1884) *KvK* brochure, BII, CII, CIV, DII, DIII, DIV [Stew.]

British officer, vice-consul at Konya, 1879–1882. Assisted Ramsay on his journeys in 1881 and 1882. The *KvK* brochure acknowledges the improved (?) versions of some of Hamilton's original drawings — with extensive coverage across Asia Minor — made by him and Naumann. [WBIS; Ramsay (1890) 5; not in ODNB]

Strecker, Wilhelm *KvK* BV, BVI, CVI (on neither edition of CVI, however, does there seem to be a route bearing his name) [Str.]

Prussian officer (artillery specialist) seconded to the Ottoman army, based at Erzerum 1853–1860. Heinrich Kiepert drew a map [**Fig. 61**] for his two-part "Topographische Mittheilungen über Hocharmenien," *Z. allgem. Erdk.* 11 (1861) 258–79 and 341–68. [NDB; Zögner (1999) #198, p. 98; Débarre (2016) index; Mitford (2018) 1, 579]

Sykes, Mark (1879–1919) *KvK* DV (ed. 2), DVI (ed. 2) [Sy.]; see Hartmann (1913) 75–76

British independent traveler who traversed much of the Ottoman empire on several journeys between 1898 and 1906 (as honorary attaché at the embassy in Constantinople, 1905–1906). Mitford (2018) figs. 295–96 reproduce the sketch map published of his route in 1906. [ODNB; Mitford (2018) 579 and index]

Szanto, Emil (1857–1904) *KvK* brochure; with Hula: DI [H.u.S.]

Austrian ancient historian and epigrapher who explored Caria with Hula in 1894. The *KvK* brochure recognizes his assistance in mapping the south-west. [ÖBL]

Taylor, John George *KvK* BV, BVI, CV, CVI, DVI [Ta.]

British consul-general for Kurdistan, based successively at Diyarbakır and Erzerum, for several years from 1859; archaeologist. Mitford (2018) fig. 288 reproduces the sketch map published of his route in 1866 [WBIS; Bruissenen (1997) 11; Mitford (2018) 1, 579 and index; not in ODNB]

Texier, Charles Félix Marie (1802–1871) *KvK* brochure, BV, CV [Te(x).]

French archaeologist and architect, who made four journeys to Asia Minor between 1833 and 1843. Heinrich Kiepert drew a map (Taf. VI) of a route he took in the east in 1836, and published it in "Beilage" (p. 339) to a record of Tschichatschef's travels (1859) [**Fig. 62**]. [WBIS; Broc (1992) 420; Zögner (1999) #172, p. 96 (cf. #171); Débarre (2016) index; Mitford (2018) index]

de Torcy, Louis Joseph Gilles (1844–1918) *KvK* DV [To.]

French officer, military attaché at Constantinople, commissioned to visit Syria in 1880–1881 — with a road-engineer, G. Renault — in order to explore its lesser known parts and to report on the situation in the region. Reports by both are listed in Spiridonakis (1973) 359–64 [WBIS; Kornrumpf (1998) s.v. Renault]

Truilhier, Hilarion (1779–1812) *KvK* CV, CVI, DV [Tr.]

French officer, member of the mission led by Claude-Mathieu de Gardane, which was dispatched (1807) in part to reconnoiter possible overland routes by which Napoleon might invade India. For this purpose Truilhier traveled (alone) through Syria and Mesopotamia, rejoining his colleagues in Teheran (September 1808). The Kiepert-Zimmer held a copy — made by Heinrich Kiepert in October 1879 from the original manuscript at the French ministry of foreign affairs, Paris — of "Reconnaissance militaire d'une grande communication d'Alep à Tehran par Truilhier, capitaine au Corps impérial de génie 1808" (#6090, p. 353; scale not stated). [R. Kiepert in Oppenheim (1900) 394; Broc (1992) 423; cf. 204–205; Enc Iranica, s.v. Gardane Mission; no entry in Spiridonakis (1973)]

de/von Tschihatschew, Petr/Pyotr Alexandrovič (1808–1890) *SpecK* (1890) 5–6; III, IV, V, VI, VIII, IX, XI, XII [Tch]; *KvK* brochure, AII, AIII, AIV, AV, BI, BII, BIII, BIV, BV, BVI, CI, CII, CIII, CIV, DII, DIII [Tschi.]
[Alternative transliterations: Chikhachev, Čichačev (used by WBIS, WorldCat), Chikhachyov (by Wikipedia), Tchihatchef, Tschihatscheff, Tchihatscheff, Tchihatcheff — these last two in *SpecK* (1890) on successive pages!]

Russian scientist who traveled in Asia Minor between 1847 and 1863. Between 1853 and 1869 he published a massive record (4 parts in 8 vols; 3 atlases) *Asie Mineure. Description physique, statistique et archéologique de cette contrée* (Paris: Gide & Baudry, then Guérin). Heinrich Kiepert contributed a map (Taf. V) and Beilage to his record of travels in 1858, published the following year [**Fig. 63**]. Later, Heinrich contributed a second map to the more extensive account (1867) *P. v. Tschihatscheff's Reisen in Kleinasien und Armenien 1847–1863* [**Fig. 64**]. In Cook's view (1973, 34–35): "Tchihatcheff travelled without intermission and cannot often have paused to dismount; his itinerary and descriptions consequently abound in errors and misunderstandings, and in archaeological matters he was naïve. But he was an important source of information for the Kieperts' maps." On this latter point Cook is manifestly correct, even though in the first of his *SpecK* Begleitworte Heinrich characterized Tschihatscheff's reports as inaccurate; later, his elevation data was dismissed as completely unreliable by Leonhard

(1915) 165 n. 1. [WBIS s.v. Čichačev; Robert (1954) 63; (1980) 47; Débarre (2016) index]

von Vincke[-Olbendorf], Karl Friedrich Ludwig (1800–1869) *SpecK* (1890) 3, 5; *KvK* BII, BIII, BIV, BV, CIV, CV [(v.) Vi.]

Prussian officer who went on von Moltke's mission, 1837–1839. Heinrich Kiepert acknowledges use of his data for the easternmost parts of *SpecK* III and VI. For Heinrich's maps showing the routes, see s.v. Moltke. [WBIS; Zögner (1999) index.; Débarre (2016) index]

Virchow, Rudolf (1821–1902) *SpecK* (1890) 8; IV [Vi]

Prominent German pathologist with numerous interests including anthropology and archaeology, who joined his friend Schliemann at Troy for a month in 1879 as excavation-site physician. While in the Troad he calculated spot-heights marked by Heinrich Kiepert on *SpecK* IV.

de Vogüé, Charles-Jean-Melchior (1829–1916) *KvK* DIV, DV [Vo.]

French diplomat, who also pursued a keen interest in antiquities and history. During the 1850s and 1860s he explored Syria (especially its limestone massif) and Palestine. Ambassador in Constantinople, 1871–1875. [Broc (1992) 438; Sheila McGuirk, "A French Traveller in the Levant: The Marquis Charles-Jean-Melchior de Vogüé (1829–1916), with reference to William Henry Waddington (1826–94)." In Neil Cooke and Vanessa Daubney, eds., *Lost and Now Found: Explorers, Diplomats and Artists in Egypt and the Near East* (Oxford: Archaeopress, 2017) 251–60]

Vrontchenko: see Wrontschenko [V spelling is in *SpecK* (1890) 8, even though on 5 a variant W spelling is used!]

Wankowitz, Th. *KvK* brochure, BIV [Wan.]

Polish chief engineer of Angora province in 1882, thanked by Humann and Puchstein for his assistance to them. The *KvK* brochure recognizes him, among other engineers, for assistance in mapping the north-east. The Kiepert-Zimmer held his 1:100,000 scale map that covered Yozgat to Maden, dated November 1885 and was based on a 1:200,000 scale map by Richard Kiepert (#5517, p. 317). [Humann and Puchstein (1890) 6]

Weber, Georg (died 1910) *SpecK* (1890) 5

Independent scholar ("Dr."), one of two Smyrna residents whose publications (especially in *Mouseion kai Bibliotheke*, journal of the Greek Evangelical School there) on archaeology and local geography were valued by Heinrich Kiepert. The other was Aristoteles Fontrier (see

s.v.). Weber included a map "Carte du Sipylos" (1:125,000) in his book *Le Sipylos et ses Monuments: Ancienne Smyrne (Naulochon)* (Paris: Ducher, 1880). For *SpecK*, Heinrich used a Greek translation of this map "Smyrne meta ton Perix" (Leipzig: Neranize, 1885), which the Kiepert-Zimmer held (#5684, p. 324); a copy surviving elsewhere has yet to be found. A 1:200,000 scale version entitled "Umbegung von Smyrna," incorporating revisions proposed by Fontrier in 1907, appears in *RE* IIIA.1 (1929) s.v. Smyrna, col. 747 (by Ludwig Bürchner).

von Wendt [Nadir Pasha] (1812–1892) *KvK* AVI, BVI [We.]

Prussian officer in Ottoman service (1838–1843 and 1850–1890), some of whose itineraries in north-east Asia Minor were shared with Heinrich Kiepert by Goltz in 1887. [WBIS; Débarre (2016) index]

Wharton, William (1843–1905) *SpecK* (1890) 4

British naval officer and hydrographer who surveyed in the Hellespont, Sea of Marmara and Black Sea during the 1870s. Admiralty Charts *Black Sea* VIII and IX (nos. 2237–38) incorporating Wharton's additions and corrections were fundamental to Richard Kiepert's production of a base for the two maps [**Figs. 43**, **44**] he made in 1908 for Leonhard's book (1915). [ODNB; *Forgotten* V.39]

Wilhelm, Adolf (1884–1950) with Heberdey: *KvK* brochure, CIII, CIV, DII, DIII, DIV [H.u.W.]

Austrian classical philologist and epigrapher who explored Cilicia with Heberdey (see s.v. and **Fig. 38**) in 1891–1892. [DBE]

Wilski, Paul (1868–1939) [*KvK* CI (ed. 2)]; see Hartmann (1913) 75–76

German surveyor and climatologist named in connection with the revision of CI. His *Milet I: Karte der milesischen Halbinsel (1:50 000)* appeared in 1906 (Berlin: Reimer). [WBIS]

Wilson, [Sir] Charles W. (1836–1905) *KvK* CIV, CV, DIV [Wi.]

From 1879 to 1882 British military consul-general in Anatolia, where he traveled widely. [ODNB; Fischer (1920) 85–86; Foliard (2017) index s.v., esp. 112–13]

Winter, Franz (1861–1930) *KvK* DV [Wi.]

German archaeologist and art historian who participated in Carl Humann's excavations at Sendjirli (= Zincirli) in 1888, and informed Heinrich Kiepert about his journey to Djerabis (Europus) on the Euphrates. He is credited on a route north-west from Europus (above Karadjören). [WBIS; R. Kiepert in Oppenheim (1900) 392, 394; Marina Pucci, "Excavating Zincirli's Archives: The Discovery of the Southern

City Gate," in Silvia Alaura, ed., *Digging in the Archives: From the History of Oriental Studies to the History of Ideas* (Rome: Quasar, 2020) 33–50 at 37.

Wrontschenko, Michail (1801–1855) [also Vrontchenko and other variant spellings] *SpecK* (1890) 3–5, 8; (1891); *KvK* AIII, AIV, BI, BII, BIII, BIV, CI, CII, CIII, CIV (ed. 2), DII, DIII [Wr.]

Russian officer, cartographer and astronomer who traveled in Asia Minor during the mid 1830s. Heinrich Kiepert valued his findings (which were evidently kept secret for twenty years). For *SpecK*, although Heinrich lists the abbreviation Vr, he seems never to use it, and he came to doubt the accuracy of a critical longitude figure calculated by Vrontchenko. [Kornrumpf (1998) s.v. Vrončenko; WBIS; Débarre (2016) 108–109]

Wünsch, Josef (1842–1907) *KvK* BV, CV, CVI [Wü.]

Czech professor of philology whose passion for travel drew him to Asia Minor. In 1881 he asked Heinrich Kiepert to direct him to a potentially rewarding area in need of study. The following year, on Heinrich's recommendation and after some training in cartography, he traveled to Armenia and Kurdistan. He returned there in 1883 (after spending the winter in Constantinople), finding the source of the East Tigris in June and that of the West Tigris in July. On Heinrich's 1:1,500,000 *Nouvelle Carte générale des provinces asiatiques de l'empire Ottoman (sans l'Arabie)* dated 1883 and published the following year, he is recognized as an informant who made last-minute corrections possible (see box top right). [WBIS; Adéla Křikavová, "Professor Josef Wünsch, his Journey and Exploration of the Tigris' Sources (1881–1883)," *Archív Orientální* 50 (1982) 122–36, including the text of two letters from Heinrich Kiepert. For further letters, see J. Stěhule, "Dopisy kartografa Kieperta cestavateli Jos. Wünschovi," *Sborník Československé Společnosti Zeměpisné* 46 (1940–1941) 50–60]

Yorke, Vincent Wodehouse (1869–1957) *KvK* BV, CV [Yo.]

British classicist and epigrapher who traveled in eastern Asia Minor with A. C. Headlam, Hogarth, Munro and Ramsay in 1890–1891, and with Hogarth in 1894. Mitford (2018) map 26 reproduces the 1:500,000 scale sketch map published of his route in the latter year. [WBIS; Gill (2011) 409 and index; Mitford (2018) 1, 579 and index; not in ODNB]

Young with Abd el Magid Yusri: *KvK* [DII (ed. 2)]

British (?) surveyor whose "prismatic compass survey 1909–1910" made for the Survey Department, Egypt, was a source for its three-part *Map of Dalaman Chai* (1:100,000) issued in 1911 [**Fig. 22**]. Named at the river mouth on *KvK* DII (ed. 2) [**Fig. 23b**].

Zimmerer, Heinrich (1860–1924) with Roman Oberhummer: *KvK* BIII [Ob.]

German geographer who traveled through Syria, Palestine, and Asia Minor with Roman Oberhummer in 1896. [WBIS]

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or about them, cited only in their Appendix entries)

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TABLE 1

Specialkarte vom Westlichen Kleinasien: Informants Credited for Spot-Heights

(in alphabetical order of abbreviation)
n.b. Spot-heights are not found on VII, X, XIII, XIV, XV

Abbreviation	*Specialkarte vom Westlichen Kleinasien* Name as credited by Heinrich Kiepert	I	II	III	IV	V	VI	VIa	VIII	IX	XI	XII
Ai	Ainsworth							x				
B	Benndorf und Niemann										x	
Bk	von Bukowski										x	x
D	von Diest			x		x	x		x	x		
F	Fabricius				x				x			
Ha	Hamilton								x			
Hi	Hirschfeld										x	x
Hu	Humann					x	x	x				
K	Kiepert				x							x
L(u)	von Luschan											x
Le	Leclercq						x			x		
Lp	Lennep									x		
M	Möllhausen								x	x		
P(e)	Perrot			x		x	x	x	x			
Pu	Purser									x		
R(a)	Ramsay							x	x	x	x	x
S. Ch.	sea-chart [British Admiralty ?]	x	x	x	x						x	
Sch	Schmidt (Troy area)				x							
Sch	Schuchhardt (Pergamum area)				x							
Sl	Schliemann				x							
Sm	[Arthur Hamilton] Smith										x	x
Sp	Spratt											x
St	Sterrett											x
Tch	Tchihatcheff			x	x	x	x		x	x	x	x
Vi	Virchow				x							

TABLE 2

Karte von Kleinasien:
Named Individuals and Groups

(in alphabetical order of abbreviation)

Abbreviation	*Karte von Kleinasien* Named Individuals and Groups [1, 2 , 3, 4 = eds specified; x = all eds]	Brochure	A II	A III	A IV	A V	A VI	B I	B II	B III	B IV	B V	B VI	C I	C II	C III	C IV	C V	C VI	D I	D II	D III	D IV	D V	D VI
n/a	Abd el Magid Jusri																				2				
Ains(w)	Ainsworth			x	x					x	x	x				x	x	x	x				x	x	x
An	Andrus																		x						
An(d)	(J.G.C.) Anderson				2,3	2,3		x	x	x	2					x	x									
An(t)	Anton			x					x	x															
n/a	Arlaud	x																							
Ar	Arundel														x										
Au	Austin	x				x						x													
B.N.	Benndorf und Niemann				x																x				
Ba	Barth								x	x	x	x					x								
Ba(d)	Badger																		x						
Be	Benndorf	x												x						x	x				
Be	Bent																						x		
Be(ll)	G(ertrude) Lowthian Bell																							2	2
Bel	Belloc	x			x							2,3													
Bel	Beloc (= Belloc above ?)					x																			
n/a	Berg											2,3													
Ber	Bernard	x									x		x												
Bia	Bianchi d'Adda	x								x	x														
Bl	Blanckenhorn																						x	x	
Bl	Blunt																								x
Bl(a)	Blau	x					x						x												
n/a	Bluhm	x																							

Abbreviation	*Karte von Kleinasien* Named Individuals and Groups [1, 2 , 3, 4 = eds specified; x = all eds]	Brochure	A II	A III	A IV	A V	A VI	B I	B II	B III	B IV	B V	B VI	C I	C II	C III	C IV	C V	C VI	D I	D II	D III	D IV	D V	D VI
Br	Briot	x				x						x	x												
Br(a)	Brant												x						x						
Bu	Burckhardt																							x	
Bu	Buresch	x						x	x					x	x										
Bu	Butyka	x																	x						
Buc	Buckingham																		x						
Buk	von Bukowski	x													x										
n/a	Callier	x																							
Ch(ant)	Chantre	x								x	x						x								
Cha(n)	Chanykow	x		x	x					x	x														
n/a	Chartier	x																							
n/a	Chermside	x																							
Che	Chesney																x	x					x	x	
Cu	F.u.E Cumont										2	3													
Cum	Cumont				2,3																				
D.A.	Dell'Agnola							x																	
D.u.S	Davis und Seiff	x													x						x				
Da	Daniell, Spratt und Forbes																				x				
De	Deffner	x				x	x					x	x												
n/a	Desmazures und Groppler	x																							
Di	von Diest		x	x				x	x	x				x	x										
Dru	Drummond																						x	x	
E	Endriss		2																						
Egg	Eggert																					x			
Em	Emin Pascha																						x		
Eng(l)	Englische Offiziere	x								x		x	x				x	x	x				x	x	x
Ev	Everett	x					x						x												
F.u.M	Favre und Mandrot																						x		
Fa	Fabricius							x						x	x										
Fi	Fischer															x	x					x	x		
Fi	Fitzner		x																						
n/a	von Flottwell: see Pr																								
Fo	Forbes (Frederick)																								x
n/a	Forbes (Edward): see Da																								
(G.) Hi(r)	(G.) Hirschfeld	x		x	x	x					x	x		x	x	x						x			

Abbreviation	*Karte von Kleinasien* Named Individuals and Groups [1, 2 , 3, 4 = eds specified; x = all eds]	Brochure	A II	A III	A IV	A V	A VI	B I	B II	B III	B IV	B V	B VI	C I	C II	C III	C IV	C V	C VI	D I	D II	D III	D IV	D V	D VI
n/a	Galland	x																								
Go	von der Goltz		x						x	x																
Go	Gorkiewicz	x																				x				
Gö	Gölher							x																		
Gö	Graf Götzen								x																	
n/a	Godchaux	x																								
God	Godefroy	x								x																
Gr	Grothe ann																	2								
Gu(i)	Walter Guinness																		2							
H.u.S	Hula und Szanto																			x						
H.u.W	Heberdey und Wilhelm	x														x	x				x	x	x			
Ha	Hartmann	x																x					x	x		
Ha(m)	Hamilton	x			x	x	x	x	x	x	x	x	x		x	x	x					x				
(v.) Han	von Handel-Mazzetti	2																2	2							
n/a	Handelsministerium (Ottoman)	x																								
Haus	Haussknecht	x										x						x	x					x	x	
He	Heberdey	x																			x					
He(rz)	(E.) Herzfeld																					2	2,3 4		2	
Ho	Hommaire de Hell		x																							
Ho	Hoskyn																				x					
Hog	Hogarth	2														x	x	x				x				
Hog u. Mu	Hogarth und Munro											x														
Hu(m)	Humann				x			x	x	x	x			x	x			x						x		
Hun	Huntington												x					x	x							
In	Eisenbahn-Ingenieure											x			x			x	x				x	x	x	
n/a	Isidore	x																								
J(a)	Janke															2	2						2,3 4			
Ja	Janke u. von Marées							x																		
Jer	(G.) de Jerphanion	2			3	3					2	3										2				
n/a	Jewett											2														
Ju	Judeich	2						x	x																	
n/a	Kalinka: see Kr																									

Abbreviation	*Karte von Kleinasien* Named Individuals and Groups [1, 2 , 3, 4 = eds specified; x = all eds]	Brochure	A II	A III	A IV	A V	A VI	B I	B II	B III	B IV	B V	B VI	C I	C II	C III	C IV	C V	C VI	D I	D II	D III	D IV	D V	D VI
n/a	Kandi	1																							
K.u.v.Pr	Keil u. v. Premerstein							2																	
Ka	Kannenberg				x					x															
Kar	Karolidis																x								
Ki	(H.) Kiepert	x						x	x					x						x	x				
Kin	Kinneir																		x			x			
Ko	Koch						x						x						x						
Ko	Kotschy																x						x		
Kö	A. Körte	2	x	x					x	x					x										
Ko(l)	Koldewey	x						x										x					x	x	
n/a	Kossmat: see v.Han																								
Kr	Krause	x			x	x	x					x	x												
Kr	Krickl (und Kalinka)	2																		x	x				
La	Graf (von) Lanckoroński	x													x						x	x			
n/a	Landron: see Leb																								
La	Layard																		x						x
Lan	Langlois	x																					x		
n/a	Leake																					x			
Le(b)	Lebas [see also Leb]								x						x										
Le(o)(n)	Leonhard	2	x	x	x				x	x															
Leb	Lebas und Landron [see also Le(b)]													x											
n/a	Leclercq	x																							
Le(j)	Lejean	x									x						x	x							
Lö	Löwy	x																			x				
Lu	von Luschan	x														x		x			x	x	x		
Ly	Lynch												x					x	x					x	
n/a	Mandrot: see F.u.M																								
M.u.S	Mircher und Saget	x				x	x					x	x												
Mae	Maercker				x					x	x														
n/a	von Marées: see Ja																								
n/a	Mathieu	x																							
Mau	Maunsell	x																	x						
Mo	Mordtmann								x																
Mo	Mosca	x						x																	
Mö	Möllhausen	x													x										

Abbreviation	*Karte von Kleinasien* Named Individuals and Groups [1, 2 , 3, 4 = eds specified; x = all eds]	Brochure	A II	A III	A IV	A V	A VI	B I	B II	B III	B IV	B V	B VI	C I	C II	C III	C IV	C V	C VI	D I	D II	D III	D IV	D V	D VI
Mor	Moritz																	x						x	x	
Mu	Murphy																x							x		
Mü	Mühlbach																		x							
n/a	Munro: see Hog.u.Mu																									
n/a	Muzaffer Pascha	2																								
n/a	Myres: see Pa																									
Na	J. P. Naab																		2							
Na(u)	Naumann	x						x	x	x	x						x	x	x							
Ne	Newton																			x						
Ni	Niemann [see also B.N.]																				x					
Ob	Oberhummer und Schlagintweit														x											
Ob	Oberhummer und Zimmerer									x																
Ob(erh)	Oberhummer										x					x	x									
Og	Ogilvy	x												x												
n/a	Olivier																					x				
Op	von Oppenheim																		x					x	x	
Pa	Parry																		x							
Pa	Paton														x											
Pa	Paton und Myers/Myres													x						x						
Pe	Perrot		x	x				x	x	x	x															
Pe	Petersen	x																			x					
Pen	Penther																2									
Ph(i)	Philippson	2						2						2												
n/a	von Premerstein: see K.u.v.Pr																									
Pr	Preusser	2	x	x					x	x																
Pr	von Prokesch-Osten							x																		
Pr	von Prittwitz und Gaffron und von Flottwell				x																					
Pr(i)	von Prittwitz und Gaffron									x	x															
Pu	Puchstein																	x	x					x		
Pu	Purser														x											
Qu	von Quast									x																
Ra(m)	Ramsay								x	x					x	x	x	x			x	x				

Abbreviation	*Karte von Kleinasien* Named Individuals and Groups [1, 2 , 3, 4 = eds specified; x = all eds]	Brochure	A II	A III	A IV	A V	A VI	B I	B II	B III	B IV	B V	B VI	C I	C II	C III	C IV	C V	C VI	D I	D II	D III	D IV	D V	D VI
Rad	Radet								x						x											
Re	Rey																							x		
Ri	(O.) v(on) Richter															x							x			
Riv	Rivet	x			x	x					x	x														
Ro	Rohnstock								x																	
n/a	Rosazza	x																								
Rö	Römer	x																					x	x		
Rö	Rössler																								2	
Ru	Ruge							x						x												
Ru	Russegger																x							x		
Ru	Russische Offiziere						x						x													
n/a	Saget: see M.u.S																									
Sa	Sandreczki																		x							
Sa	Sarre														x	x										
Sach	Sachau	x																x	x						x	x
Scha	Schaffer	1															x							x		
Schae	Schaeffer			x	x					x	x															
n/a	Schlagintweit: see Ob																									
Schö	Schönborn													x	x	x					x	x				
Schr	Schröder																								x	
Schu	Schuchhardt													x												
n/a	Scidune	x																								
Se	Seiff [see also D.u.S]																x							x	x	
n/a	Sette	x																								
Si	Simon											x														
Sm	Arthur Hamilton Smith								x						x						x					
Sm	Eli Smith																							x	x	
So	Socin																		x						x	
Sp	Sperling	x							x						x								x			
n/a	Spratt: see Da																									
St(er)	Sterret(t)								x	x	x				x	x	x	x					x	x	x	
Stew	Stewart	x							x						x		x				x	x	x			
Str	Strecker											x	x						x							
Sy	(Mark) Sykes																								2	2
n/a	Szanto [see also H.u.S]	x																								

Abbreviation	*Karte von Kleinasien* Named Individuals and Groups [1, 2 , 3, 4 = eds specified; x = all eds]	Brochure	A II	A III	A IV	A V	A VI	B I	B II	B III	B IV	B V	B VI	C I	C II	C III	C IV	C V	C VI	D I	D II	D III	D IV	D V	D VI
Ta	Taylor											x	x					x	x						x
Te(x)	Texier	x										x						x							
Tk	Ingenieure in türk. Diensten	x			x				x				x					x	x						
To	de Torcy																							x	
Tr	Truilhier																	x	x					x	
Tschi	(von) Tschihatschew	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x				x	x			
v.Han	von Handel-Mazzetti u. Kosmat					2,3																			
v.L	van Lennep										x	x			x										
v.M = Mo	von Moltke				x						x	x				x	2	x	x					x	x
(v.) Vi	von Vincke								x	x	x	x					x	x							
Vo	de Vogué																						x	x	
Wan	Wankowitz	x									x														
We	von Wendt						x						x												
n/a	Wilhelm: see H.u.W																								
n/a	Wilski													2											
Wi	Sir C(harles) W. Wilson																x	x					x		
Wi	Winter																							x	
Wr	Wrontschenko			x	x			x	x	x	x			x	x	x	2				x	x			
Wü	Wünsch											x						x	x						
Yo	Yorke											x						x							
n/a	Young																				2				
n/a	Zimmerer: see Ob																								

FIGURES

1 H. Kiepert, *Asiae Minoris Antiquae Tabula* sheet 4 (1888, reprinted 1894).

2 Index map for H. Kiepert, *Specialkarte vom Westlichen Kleinasien* I–XV (1890).

3 Index map for Ottoman administrative divisions within the scope of H. Kiepert, *Specialkarte vom Westlichen Kleinasien* (1892).

4 Extension (VIa) of H. Kiepert, *Specialkarte vom Westlichen Kleinasien* showing CFOA railroad continued to Angora (1892).

5 *Französisch-türkischer Conflikt Mytilini-Smyrna* based on H. Kiepert, *Specialkarte vom Westlichen Kleinasien* [IV, VII] (undated, 1901).

6a Detail from H. Kiepert, *Westliches Klein Asien* VII (revision of *Specialkarte*, undated).

6b Corresponding detail from R. Kiepert, *Karte von Kleinasien* CI ed. 1 (1905).

7a, b Revised two-page brochure for re-issue of R. Kiepert, *Karte von Kleinasien* (1929).

8 Index map for R. Kiepert, *Karte von Kleinasien* (1901).

9 Simplified index map for R. Kiepert, *Karte von Kleinasien* (1908).

10 R. Kiepert, *Karte von Kleinasien* DIV ed. 2/3 (1910/1911).

11a Detail from R. Kiepert, *Karte von Kleinasien* AVI ed. 1 (undated, 1904).

11b Corresponding detail from R. Kiepert, *Karte von Kleinasien* AVI ed. 2 (1913).

12 V. Kandes, *ΤΟΠΟΓΡΑΦΙΚΟΣ ΧΑΡΤΗΣ ΠΡΟΥΣΗΣ ΚΑΙ ΤΩΝ ΠΕΡΙΞ* (1883).

13 Detail from H. Kiepert, *Specialkarte vom Westlichen Kleinasien* III (1890).

14 Index map for Ottoman territory covered by British *Eastern Turkey in Asia* series (1901–1904).

15a Detail from R. Kiepert, *Karte von Kleinasien* BV ed. 1 (undated, 1902).

15b Corresponding detail from *Eastern Turkey in Asia* 8 (1902).

16 H. Imhoff, *Die Eisenbahn-Konzessionen in der Asiatischen Türkei im Jahre 1914* (1915).

17 Detail from R. Kiepert, *Karte von Kleinasien* CIII ed. 1 (undated, 1901).

18a Detail from R. Kiepert, *Karte von Kleinasien* AIV ed. 1 (undated, 1901).

18b Corresponding detail from R. Kiepert, *Karte von Kleinasien* AIV ed. 2 (1908).

19a Detail from R. Kiepert, *Karte von Kleinasien* BI ed. 1 (1906).

19b Corresponding detail from R. Kiepert, *Karte von Kleinasien* BI ed. 2 (1912).

20a Detail from R. Kiepert, *Karte von Kleinasien* BV ed. 1 (undated, 1902).

20b Corresponding detail from R. Kiepert, *Karte von Kleinasien* BV ed. 2 (1912).

20c Corresponding detail from R. Kiepert, *Karte von Kleinasien* BV ed. 3 (1915).

21a Detail from R. Kiepert, *Karte von Kleinasien* CVI ed. 1 (1904).

21b Corresponding detail from R. Kiepert, *Karte von Kleinasien* CVI ed. 2 (1914).

22 Survey Dept., Egypt, *Map of Dalaman Chai* sheet 2 (1911).

23a Detail from R. Kiepert, *Karte von Kleinasien* DII ed. 1 (1905).

23b Corresponding detail from R. Kiepert, *Karte von Kleinasien* DII ed. 2 (1914).

24 H. Fischer, *Vorder-Asien nach dem Stand der topographischen Kenntnis für 1914* (1920).

25 *Kayseri*: Ottoman copy (1921) of R. Kiepert, *Karte von Kleinasien* CIV ed. 2 (1911).

26 *Reşadiye*: Ottoman 'new style' 1:200,000 series (1911).

27 *Anatolia*: index map for Russian 1:210,000 series (1915).

28a, b O. Benndorf and G. Niemann, *Lykia* drawn by H. Kiepert (two parts, 1885).

29 J. Bluhm, *Routen in Hochen Armenien* [1859] drawn by H. Kiepert (1864).

30 H. Kiepert, *Skizze der Gegend zwischen Trapezunt und Baiburt zur Erläuterung des Zuges der Zehntausend Griechen* drawn for an article co-authored with P. Borit (1870).

31 K. Buresch, *Topographische Reisen in Klein-Asien* drawn by H. Kiepert (1898).

32 E. Chantre, *Itinéraires* [in Cappadocia] … *en 1893 et 1894* drawn by H. Kiepert (1898).

33 N. Chanykof[f], *Route im nördlichen Kleinasien im Sept. u. Oct. 1846* drawn by H. Kiepert (1866).

34 A. Drummond, *A map of part of Syria from an actual survey* (1754).

35 A. Drummond, *Topographical map from Aleppo to the Euphrates* (1754).

36 H. von Handel-Mazzetti, *Reisen in Kurdistan 1910* (1912).

37a, b C. Haussknecht, *Routen im Orient 1865–1869* I and II drawn by H. Kiepert (1882).

38 R. Heberdey and A. Wilhelm, *Reisewege in Kilikien aufgenommen 1891 und 1892* drawn by H. Kiepert (1896).

39 G. Hirschfeld, *Archaeologische Reiseroute im südwestlichen Kleinasien 1874* drawn by H. Kiepert (1879).

40 H. Kiepert, *Griechisches Sprachgebiet im Pontischen Küstengebirge* (1890).

41 K. Lanckoroński, *Übersichtskarte des Südwestlichen Kleinasien* drawn by H. Kiepert (1890–1892).

42 K. Lanckoroński, *Pamphylien und Pisidien* drawn by H. Kiepert (1890–1892).

43 R. Leonhard, *Topographische Karte eines Teiles des nördlichen Kleinasien* drawn by R. Kiepert (1915).

44 R. Leonhard, *Geologische Übersichtskarte eines Teiles des nördlichen Kleinasien* drawn by R. Kiepert (1915).

45 G. A. Olivier, *Carte de l'Asie Mineure* (1807).

46a M. von Oppenheim, *Syrien und Mesopotamien, I. Westliches Blatt* drawn by R. Kiepert (1899–1900).

46b M. von Oppenheim, *Syrien und Mesopotamien, II. Östliches Blatt* drawn by R. Kiepert (1899–1900).

47 O. Puchstein, *Reise im nördlichen Syrien April – Juli 1882* drawn by H. Kiepert (1883).

48 C. Humann, *Aufnahme der Route Brussa–Angora, 1882* and *Aufnahme der Route Angora–Samsun, 1882* drawn by H. Kiepert (1890).

49 C. Humann, O. Puchstein, M. Hartmann and B. Moritz, *Karte des nördlichsten Theiles von Syrien* drawn by H. Kiepert (1890).

50 O. Puchstein, *Routen mit Sester zwischen Euphrat und Tigris 1882* drawn by H. Kiepert (1890) [continuation of Fig. 49].

51 E. Sachau, *Übersicht der Länder am oberen Euphrat u. Tigris* drawn by H. Kiepert (1880).

52 E. Sachau, *Der westliche Theil des Tör oder Masios* drawn by H. Kiepert (1880).

53 E. Sachau, *Routen in Syrien* drawn by H. Kiepert (1883).

54 E. Sachau, *Routen in Mesopotamien* drawn by H. Kiepert (1883).

55 F. Sarre, *Reise in Phrygien, Lykaonien, Isaurien und Pisidien 1895* drawn by R. Kiepert (1896).

56 E. Sperling, *Reise im westlichen Kleinasien gemacht im Herbst 1862* drawn by H. Kiepert (1863).

57 J. R. S. Sterrett, *Routes made in 1884 and 1885 … in ancient Cilicia, Lycaonia, Isauria and Pisidia* drawn by H. Kiepert (March 1888).

58 J. R. S. Sterrett, *Routes made in July and August 1884 … in ancient southern Cappadocia* drawn by H. Kiepert (June 1888).

59 J. R. S. Sterrett, *Routes made in Sept. 1884 … in ancient northern Cappadocia* drawn by H. Kiepert (June 1888).

60 J. R. S. Sterrett, *Routes made in Aug. & Sept. 1885 … in ancient Isauria* drawn by H. Kiepert (March 1888).

61 W. Strecker, *Das nordwestliche Hoch-Armenien* drawn by H. Kiepert (1861).

62 C. Texier, *Route im Östlichen Kleinasien 1836* drawn by H. Kiepert (1859).

63 P. von Tschichatscheff, *Routen im nordöstlichen Kleinasien und Armenien im Sommer 1858* drawn by H. Kiepert (1859).

64 P. de Tchihatchef, *Carte de l'Asie Mineure contenant les itinéraires … en 1847, 1848, 1849, 1850, 1853, 1858 & 1863* drawn by H. Kiepert (1867).

Fig. 1

Sheet 4 of the six that comprise Heinrich Kiepert's wall-map *Asiae Minoris Antiquae Tabula in Usum Scholarum Descripta* or (in French translation) *Carte Murale de l'Asie Mineure Ancienne*, issued with four-page accompanying text in 1888. The scale (1:800,000) is larger than that of any of Heinrich's earlier maps of Asia Minor. The image here, as well as the reproduction of the entire map in *Forgotten* I.3, is taken from the 1894 reprint.
(Princeton University Library)

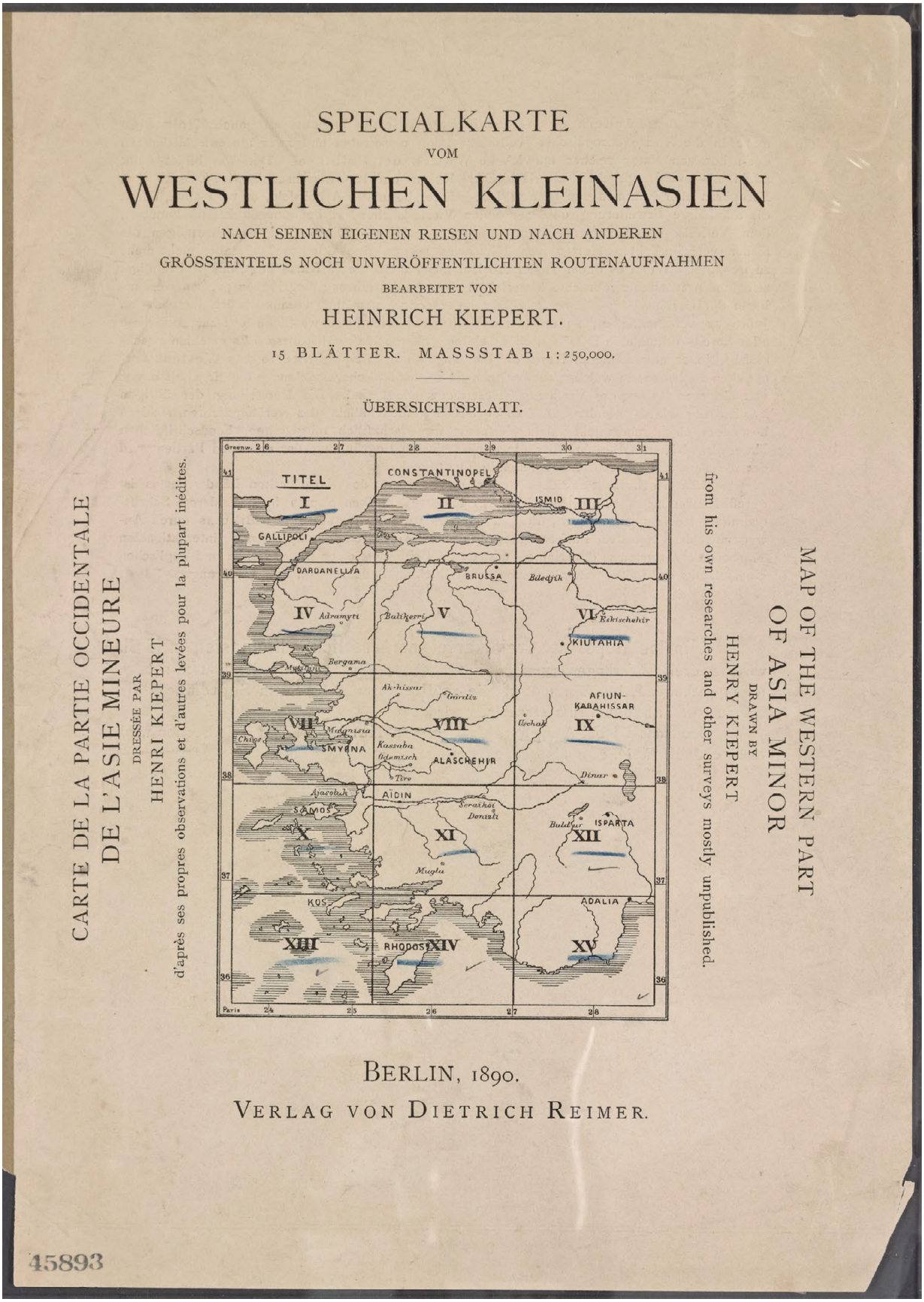


Fig. 2

Grayscale locator index issued in 1890 with the first instalment (5 maps) of Heinrich Kiepert's *SpecK*, demonstrating its ambitiously large scale: 1,250,000. Labeling in German, French and English is notable, also the sub-title "from his own researches and other surveys mostly unpublished."
(Princeton University Library)

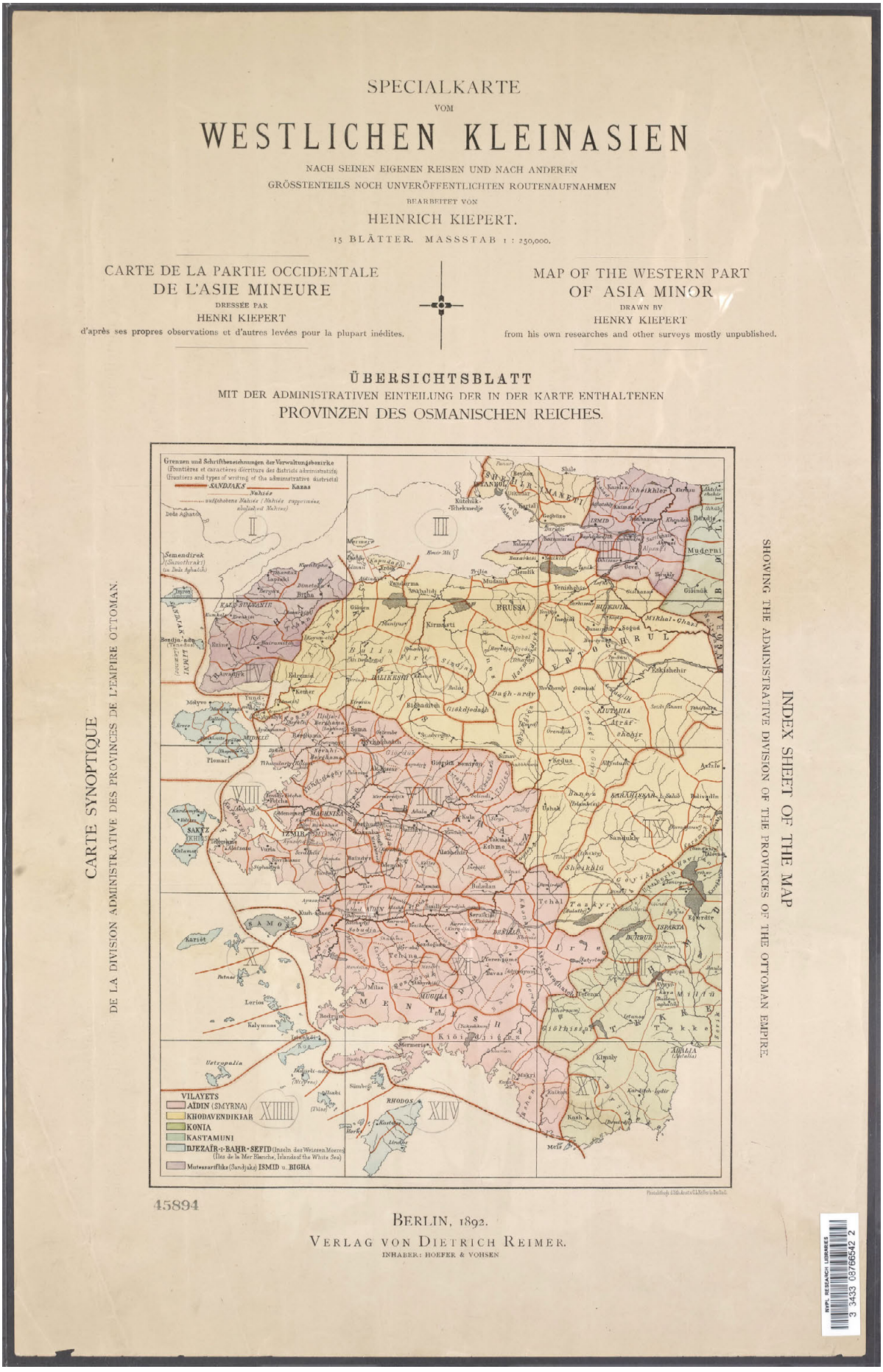

SPECIALKARTE
VOM
WESTLICHEN KLEINASIEN
NACH SEINEN EIGENEN REISEN UND NACH ANDEREN
GRÖSSTENTEILS NOCH UNVERÖFFENTLICHTEN ROUTENAUFNAHMEN
BEARBEITET VON
HEINRICH KIEPERT.
15 BLÄTTER. MASSSTAB 1 : 250,000.
CARTE DE LA PARTIE OCCIDENTALE
DE L'ASIE MINEURE
DRESSÉE PAR
HENRI KIEPERT
d'après ses propres observations et d'autres levées pour la plupart inédites.
MAP OF THE WESTERN PART
OF ASIA MINOR
DRAWN BY
HENRY KIEPERT
from his own researches and other surveys mostly unpublished.
ÜBERSICHTSBLATT
MIT DER ADMINISTRATIVEN EINTEILUNG DER IN DER KARTE ENTHALTENEN
PROVINZEN DES OSMANISCHEN REICHES.
CARTE SYNOPTIQUE
DE LA DIVISION ADMINISTRATIVE DES PROVINCES DE L'EMPIRE OTTOMAN.
INDEX SHEET OF THE MAP
SHOWING THE ADMINISTRATIVE DIVISION OF THE PROVINCES OF THE OTTOMAN EMPIRE.
VILAYETS
AIDIN (SMYRNA)
KHODAVENDIKIAR
KONIA
KASTAMUNI
DJEZAIR-i-BAHR-SEFID (Inseln des Weissen Meeres / Iles de la Mer Blanche, Islands of the White Sea)
Mutessarifliks (Sandjaks) ISMID u. BIGHA
45894
BERLIN, 1892.
VERLAG VON DIETRICH REIMER.
INHABER: HOEFER & VOHSEN

Fig. 3

Multi-color index map showing the administrative divisions of the provinces of the Ottoman empire within the scope of *SpecK*. Dated 1892, it was issued with the third and last instalment. (New York Public Library)

FORTSETZUNG DER EISENBAHNLINIE NACH ANGORA, IM ÖSTLICHEN ANSCHLUSS AN SECT. VI.

CONTINUATION DU CHEMIN DE FER À ANGORA, à joindre à la VI^me Section. CONTINUATION OF THE ANGORA RAILROAD, joining to the eastern margin of Sect VI.

1: 250000.

VERLAG VON DIETRICH REIMER IN BERLIN, 1892.

Fig. 4

Half-page extension of *SpecK* map VI (maintaining the 1:250,000 scale) to show the final stretch of the CFOA Haïdar-Pasha (*SpecK* II) to Angora railroad. Issued with *SpecK*'s third and last instalment, and dated 1892. The line was opened from Ismîd to Kalasidik (later Arifiye) in September 1891 (*SpecK* III), and then onward at the end of 1892 for the full distance to Angora via Eskishehir. (Princeton University Library)

46240.(2.)

Mitylene - Aegean Sea - Island.

Französisch-Türkischer Conflikt
MYTILINI-SMYRNA

Fig. 5

Undated Reimer map *Französisch-turkischer Conflikt Mytilini-Smyrna*, presented as "Aus H. KIEPERT Specialkarte vom westlichen Kleinasien in 15 Blatt" (bottom left margin), and maintaining its 1:250,000 scale. *SpecK* IV and VII (both 1890) are reused here to aid understanding of the so-called Lorando-Tubini affair. This reached its climax in November 1901 with the seizure and occupation of Mytilini and its harbor (on Lesbos) by a French naval squadron for six days. (British Library, Cartographic Items Maps 46240(2))

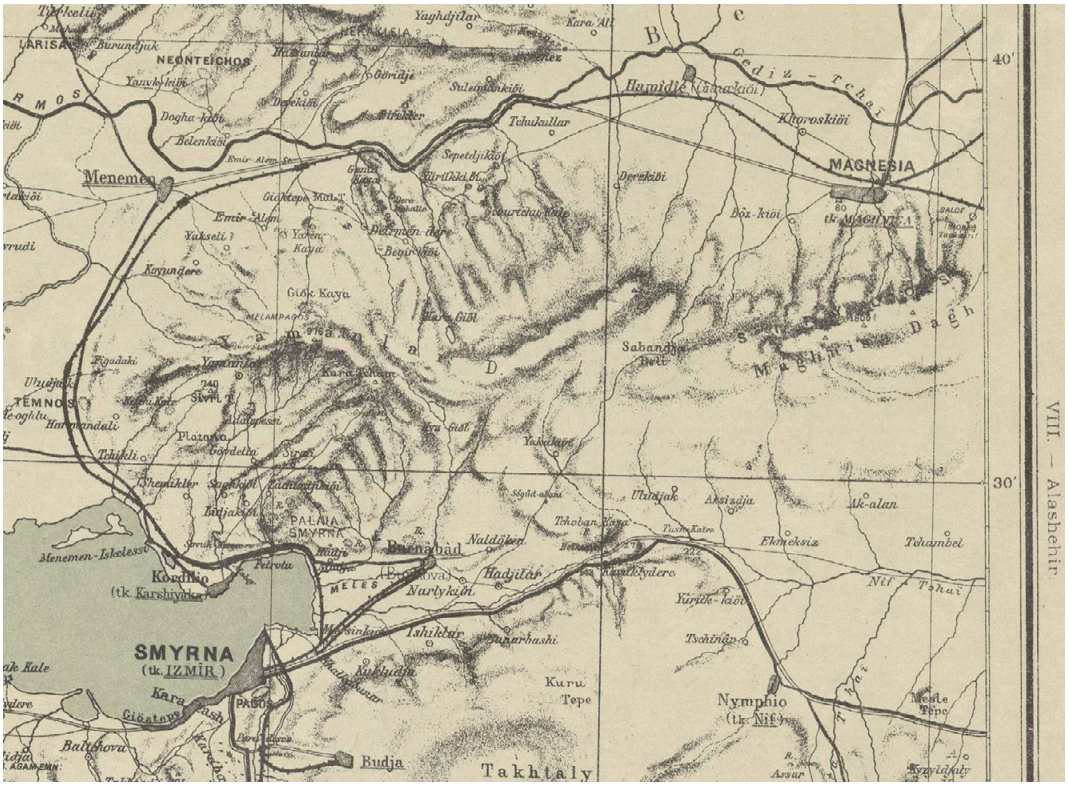


Fig. 6a

Detail from H. KIEPERT *Westliches Klein Asien* VII (1:250,000), partial revision — with no date or publisher stated — of *SpecK* VII (1890). Observe that this revision does *not* show the *chaussées* (highways) specified for addition by Heinrich in his Begleitworte to accompany *SpecK*'s Zweite Lieferung (November 1890, p. 2), following the original publication of VII in the Erste Lieferung. (BNF)

Fig. 6b

Corresponding detail from Richard Kiepert, *Karte von Kleinasien* (1:400,000) map CI ed. 1 (1905). Here the additional *chaussées* — from Smyrna to Maghnisa via Burnâbâd, and from Menemen northwards towards Berghama — *are* shown as Heinrich had specified in November 1890. (Princeton University Library)

Karte von Kleinasien in 24 Blatt.

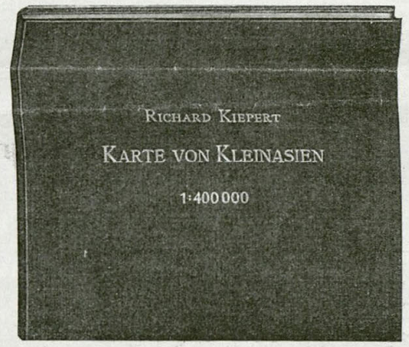
Bearbeitet von

Richard Kiepert.

Maßstab 1 : 400 000

24 Blatt in Umschlag	M. 135,–
desgl. in Leinenmappe mit Goldpressung	„ 150,–
desgl. aufgezogen in Taschenform in 2 einfachen Etuis	„ 185,–
desgl. aufgezogen in Taschenform in 2 Buchkästen mit Lederüberzug und Goldpressung	„ 200,–
Einzelne Blätter unaufgezogen	„ 6,50
Einzelne Blätter in Taschenform aufgezogen	„ 8,50

Heinrich Kiepert hatte seit seiner ersten Reise in Kleinasien (1841—1842) dies Land nie aus dem Auge gelassen, sich fortgesetzt damit beschäftigt und Karten darüber teils der ganzen Halbinsel bezw. der asiatischen Türkei, teils einzelner Gebiete veröffentlicht; aber erst Ende der siebziger Jahre scheint er dem Gedanken näher getreten zu sein, seine sechs Blätter der „Karte von



Die Karte in Leinenmappe mit Goldpressung M. 150,–

Klein-Asien“ von 1844 durch eine neue Spezialkarte zu ersetzen. Zu einer solchen hatte er alles Karten- sowie auch sonstiges Material dauernd gesammelt, wobei namentlich das ihm durch W. H. Waddingtons Freundschaft 1879 geöffnete Archiv des Auswärtigen Ministeriums in Paris reiche Ausbeute geliefert hatte. Eine große Anzahl von Routen europäischer Reisender hatte er bereits selbst bearbeitet und herausgegeben, von denen wir, von seinen eigenen vielfach grundlegenden absehend, hier nur nennen Chanykow, Tschihatschew, Sperling, Texier, Blau, Strecker, Bluhm, Briot, G. Hirschfeld, Sachau, Hausknecht, Benndorf, Petersen, Niemann, von Luschan, Löwy, Koldewey, Humann, Puchstein, Graf Lanckoroński, Butyka, Heberdey und Wilhelm, Chantre, Buresch. Nun begann er in den Ministerien in Konstantinopel von zahlreichen Aufnahmen der in türkischen Diensten stehenden Ingenieure durch Zeichner Kopien herstellen zu lassen; 1886 und 1888 gelegentlich seiner dritten und vierten kleinasiatischen Reise beteiligte er sich auch selbst an dieser Arbeit. Dazu kamen die genauen Pläne der von Deutschen und Engländern in Anatolien gebauten oder nur vermessenen bezw. rekognoszierten Eisenbahnlinien, eine stattliche Sammlung von zum Teil vorzüglichem Quellenmaterial, die durch die Güte der betreffenden Gesellschaften für uns fast bis zuletzt (z. B. durch die umfangreichen Aufnahmen für die Bagdad-Eisenbahn) vermehrt und ergänzt worden ist, ferner noch unveröffentlichte Routen europäischer Forscher, teilweise von ihm selbst konstruiert. Hinsichtlich des Westens der Halbinsel verweisen wir in dieser Hinsicht auf seine Begleitworte zur „Spezialkarte vom Westlichen Kleinasien“ (15 Blatt. Berlin. D. Reimer. 1890—92). An solchem, nur im Manuskript vorhandenen Quellenmaterial wären u. a., abgesehen von anonymen oder sekret gehaltenem, zu nennen:

Die Karte, jedes Blatt einzeln aufgezogen in Taschenformat, in 2 Buchkästen m. Lederüberzug und Goldpressung M. 170,–

auf größere Teile Kleinasiens sich beziehend: die Routen von Bernard (konstruiert von Bianchi d'Adda), ein Teil der Hamiltonschen Originalzeichnungen, die von Dr. E. Naumann und von Col. Stewart;

den Nordwesten betreffend: G. Hirschfeld (1882, Paphlagonien), A. Körte, W. Judeich, R. Leonhard, R. Preusser, Major Leclercq, die Ingenieure Godeffroy, Godchaux (Karl Dagh), Sette, Mosca, die Firma Desmazures und Groppler, Rosazza; Capitaine Camille Callier (1831):

im Nordosten: G. Hirschfeld, Bergwerksdirektor Krause, die englischen Offiziere Everett, Austin und Maunsell, die Ingenieure Belloc, Rivet, Briot und Wankowitz, Dr. Deffner, General Wendt, die französischen Offiziere Mircher und Saget:

im Südwesten: Benndorf und Hauptmann Krickl, von Bukowski, Szanto, Heberdey, Stewart, Arthur Hamilton Smith, Hogarth, die Ingeniere Gorkiewicz, Chartier, Isidore, Möllhausen, Mathieu, Scidune, Arlaud, Ogilvy:

im Südosten: Lejean, Stewart, Godeffroy, Chermside, Langlois, Ingenieur Römer, Galland, Davis und Seiff, Generalleutn. Muzaffer Pascha und vor allem das umfangreiche, unpublizierte Material des englischen War Department, welches über große, bisher unbekannt gebliebene Gebiete des östlichen Taurus und von Kurdistan erwünschten Aufschluß gibt.

Nach diesen Quellen, soweit sie nicht den letzten 20 bis 25 Jahren angehörte, hat Heinrich Kiepert in 1 : 500 000 eine Karte von Kleinasien in 24 Blatt gezeichnet, welche die Grundlage für die betreffenden Teile der so vielfach ausgenutzten „Nouvelle Carte Générale des Provinces Asiatiques de l'Empire Ottoman, Berlin 1884“ gebildet hat. Er hat dann die nächsten Jahre noch mannigfach, wenn neues Material ihm zuging, an dieser Zeichnung korrigiert und gebessert, den ganzen Westen 1890 bis 1892 auf Grund seiner eigenen Aufnahmen in 1 : 250 000 neu bearbeitet und in der fünfzehnblättrigen „Spezialkarte vom Westlichen Kleinasien“ herausgegeben, vielfach auch Reisenden Kopien von einzelnen Teilen mitgeteilt — aber die Anfang der neunziger Jahre teilweise schon fertiggestellte Reinzeichnung blieb unvollendet liegen.

Nach seinem Tode (April 1899) trat an Richard Kiepert die Aufgabe heran, das Werk wieder aufzunehmen und zu Ende zu führen. Schriftliche Aufzeichnungen über den Wert der einzelnen Quellen, ihre Zusammenarbeitung und dergleichen fanden sich im Nachlasse nicht; alles das hatte dem ersten Bearbeiter sein einst unübertreffliches Gedächtnis ersetzt. Die Arbeit mußte also ganz von neuem begonnen werden, zumal auch im letzten Jahrzehnt vielerlei neues Material, namentlich deutsches und englisches, eingegangen war. Auch von türkischer Seite war inzwischen eine Reihe von Kartenwerken geschaffen worden, deren Benutzung freilich die Anwendung vorsichtigster Kritik erfordert, welche aber für das Detail und teilweise die Rechtschreibung der Namen immerhin von Wert sind. Diese Karten sind nicht im Handel und nur schwer und unvollständig in oft nicht ganz leserlichen Lichtpausen zu beschaffen. Es sind das, abgesehen von der „Ortschaftskarte des ersten Ordu“, die H. Kiepert 1887 kopiert und deren türkische Namen er mit Hilfe von Orientalisten transkribiert hatte, 1. eine Karte des türkischen Handelsministeriums von ganz Kleinasien in 1 : 300 000, die zwischen 40 und 50 Blätter umfassen mag; 2. eine solche vom Wilajet Chodawendikjar, 20 Blatt in 1 : 100 000, und 3. eine des Wilajet Aidin, 6 Blatt in 1 : 200 000.

Auf Grund dieses gesamten in gleicher Fülle anderswo nicht vorhandenen Quellenmaterials hat Richard Kiepert im Oktober 1899 eine vollständige Neukonstruktion der Karte von Kleinasien in 1 : 400 000 mit den Blättern Jozgad und Sinob begonnen und im Mai 1907 mit Blatt Zafaranboli zum ersten Abschlusse gebracht. Unmittelbar daran schloß sich eine Berichtigung und teilweise Umarbeitung des Blattes Sinob, das in zweiter Ausgabe erschien. Damit hatte nach 7½ jähriger Arbeit eine Karte ihren Abschluß gefunden, die vielleicht die umfangreichste Leistung eines einzelnen darstellt, soweit Gebiete ohne geregelte staatliche Landesaufnahme in Betracht kommen.

Für die 2., (für Sinob, Uenije, Sivas, Adana 3.) Ausgabe wurden benutzt: G. de Jerphanion, Bassin Moyen du Yéchil Yrmag; A. Philippson, Topogr. Karte des westl. Kleinasien 1910; von Handel-Mazetti, Reisen in Kurdistan 1910; Dalaman Chai (Admiralty Charts 1909-10.)

Der Nomenklatur der Karte wendete Professor Dr. Martin Hartmann besondere Aufmerksamkeit zu und erfreute sich dabei des Rats im Orient ansässiger oder dort wohlbekannter Freunde. Für die Darstellung der türkischen Ortsnamen boten sich zwei Wege: 1. Wiedergabe des in den meisten Fällen zu erschließenden türkischen Schriftbildes, 2. Festlegung des Lautbildes. Abgesehen davon, daß die Schreibung in vielen Fällen nicht mit Sicherheit zu ermitteln ist und daß sie in nicht wenigen schwankt, gibt das türkische Schriftbild eine vollkommen falsche Vorstellung von den lautlichen Verhältnissen. So durfte nur der zweite Weg gewählt werden. Vom rein wissenschaftlichen Standpunkte aus wäre es da wohl erwünscht gewesen, die lokale Aussprache, soweit sie durch Übereinstimmung guter Gewährsmänner gesichert schien, festzuhalten. Im Interesse der Einheitlichkeit aber mußte auf den nicht beträchtlichen, rein sprachlichen Gewinn, der sich dabei ergeben hätte verzichtet werden; es wurde daher die Form eingesetzt, welche nach den Lautverhältnissen des Beamten-Türkisch zu erwarten war, ausgenommen natürlich, wo die von den Reisenden festgelegte Vulgäraussprache volkstümliche Erklärung zu bergen oder die Ersetzung durch die „korrekte“ Form nicht sicher schien. Zur Darstellung der Namen sind folgende Zeichen verwandt:

ch	= rauhem deutschen ch, wie in „Dach“
dj	= dsch
gh	= sehr schwachem Kehl-r
h	ist stets auszusprechen
s	= scharfem s
sh	= sch
tsh	= tsch
v	= w
z	= weichem s
ž	= französischem j
'	= zwischen zwei Buchstaben bedeutet, daß diese getrennt zu sprechen sind.

Betreffs der Erklärung türkischer Wörter und ihrer Abkürzungen verweisen wir auf die jedem Blatte aufgedruckten Notizen und bemerken nur noch, daß ein an das Wort angehängtes i, y oder u, bezw. si, sy, su das auf das vorhergehende Nomen bezügliche Pronomen suffixum bezeichnet, z. B. Gjaur Deresi = des Ungläubigen sein Tal, Tal des Ungläubigen. —

Endlich sei darauf hingewiesen, daß die gesamte antike Nomenklatur, soweit es irgend möglich ist, nach den neuesten Forschungen und Entdeckungen Aufnahme gefunden hat. Die Gründe für manche, von denen anderer Forscher abweichenden Ansetzungen sollen an anderer Stelle dargelegt werden.

Zur Bestellung wolle man sich des untergedruckten Bestellzettels bedienen.

Berlin, März 1929

Die Verlagshandlung.

Bestellschein.

Unterzeichnete .....bestellt hiermit

aus dem Verlag Dietrich Reimer (Ernst Vohsen) A.-G., Berlin SW 48

.....Expl. **Kiepert, Dr. Rich., Karte von Kleinasien in 24 Blatt.**

Maßstab 1 : 400 000

24 Blatt in Umschlag	M. 135,–
desgl. in Leinenmappe mit Goldpressung	„ 150,–
desgl. aufgezogen in Taschenform in 2 einfachen Etuis	„ 185,–
desgl. aufgezogen in Taschenform in 2 Buchkästen mit Lederüberzug und Goldpressung	„ 200,–
Einzelne Blätter unaufgezogen	„ 6,50
Einzelne Blätter in Taschenform aufgezogen	„ 8,50

Das Nichtgewünschte bitte zu durchstreichen.

Ort, Wohnung, Datum — Name

Fig. 7a, b

Two-page brochure for Reimer's re-issue of *KvK*, dated March 1929. The revisions made here to the text of the original brochure dated October 1901 are slight. However, the photographs of the cases in which the complete series of maps was offered for additional charges are new. If the original brochure had already been reissued for the second edition (around, say, 1910), no copy has yet come to my attention. (Institut für Kulturgeschichte der Antike, Vienna)

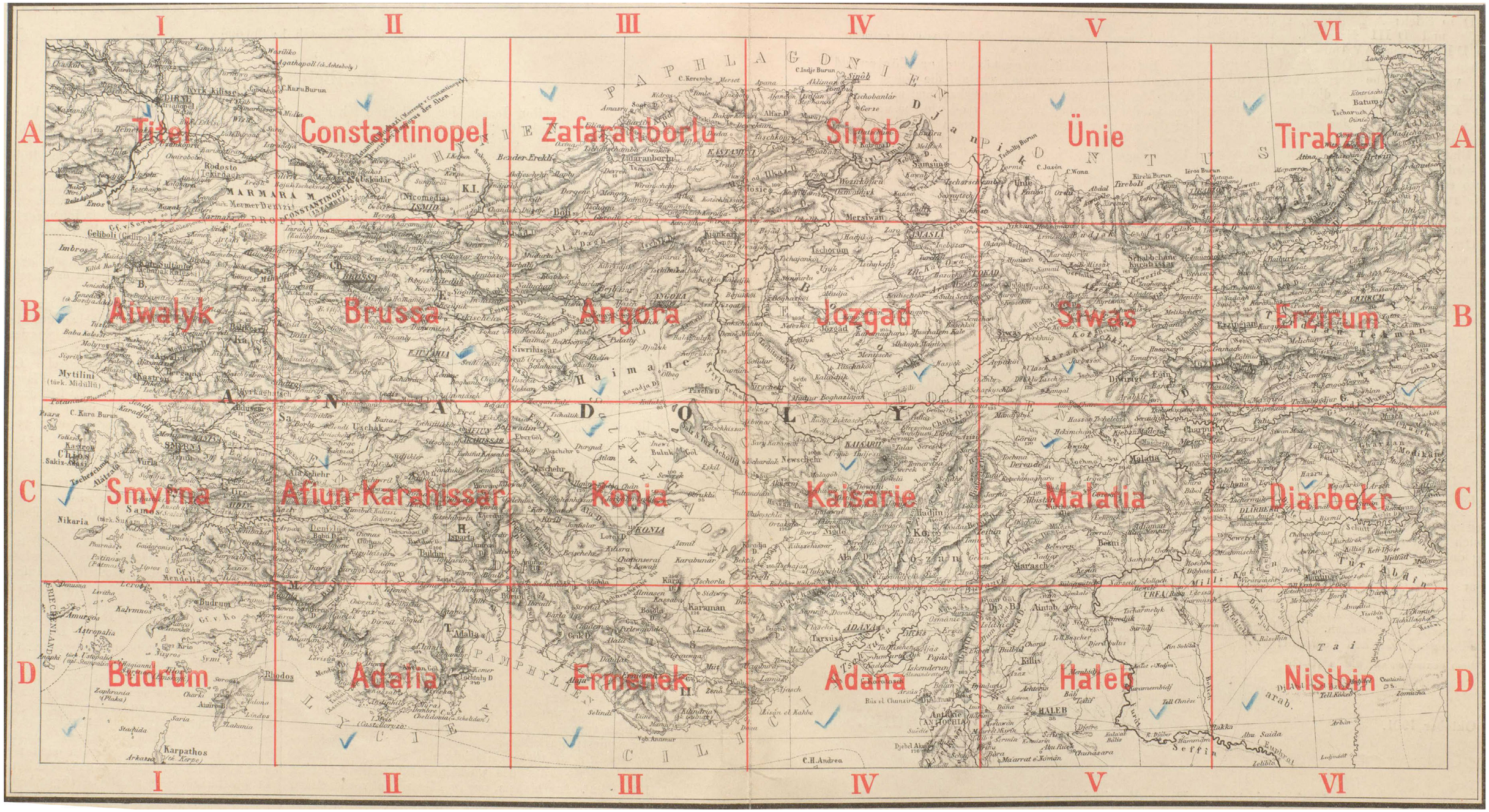


Fig. 8

KvK locator index map issued as part of Reimer's original brochure dated October 1901. Although red is the choice of color here, it was never among those used for the *KvK* maps themselves. The spelling adopted for the title of a map when it came to be produced may differ from the spelling here. (New York Public Library)

Fig. 9

Revised, simplified *KvK* locator index map issued by Reimer in 1908. It was in this year that Richard Kiepert declared the series complete, with all 24 maps now issued together with a revision of AIV. The maps' titles are all spelled here as on the maps themselves, except for CVI *Djarbekir* (*Diarbekir* on the map). (New York Public Library)

RICHARD KIEPERT, Karte von Kleinasien

DIV. Adana.

Gezeichnet von R. Kiepert.

Gestochen von H. Serbeck, Terrain von J. Sulzer

Geographische Verlagshandlung
DIETRICH REIMER [ERNST VOHSEN] BERLIN
Wilhelmstrasse 29.

1910.
(Zweite Auflage.)
Dritte Ausgabe mit Nachträgen Ell.

Maßstab 1:400 000

0 5 10 15 20 25 30 35 40 45 50 Km.

In den arabischen Namen der Blätter Adana, Haleb und Nebin sind die emphatischen Consonanten durch einen darunter gesetzten Punkt unterschieden (d h, ṣ, ṭ, ẓ). Von den Gutturalen ist das weiche in der Kehle gesprochene r durch gh, der scharfe Kehlhauch Ain durch ' wiedergegeben. ţ engl. Th, ḏ zwischen ţ.

Fig. 10

KvK (1:400,000) map DIV "1910. (Zweite Auflage.) Dritte Ausgabe mit Nachträgen 1911." Although for *KvK* maps the description second/third edition here is unique, it aptly illustrates the profusion of second and subsequent editions for several other maps in the series, even two editions in the same year for some — among them DIV again, with its third edition also dated 1911. Such profusion — surely not necessary — defies explanation. (British Library)

Fig. 11a

Detail from *KvK* (1:400,000) map AVI ed. 1 undated [1904]. Note the placement of the names GIZENICA and Supanoi (both top left). (Princeton University Library)

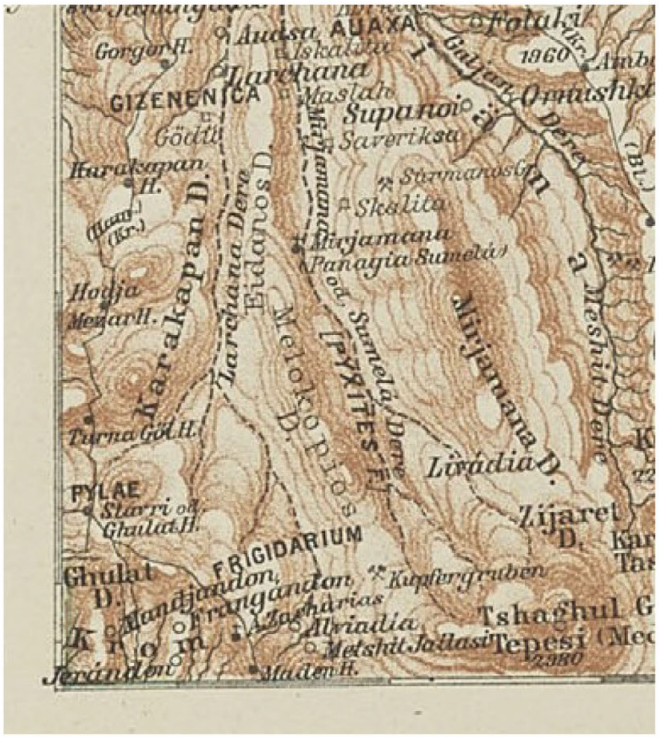


Fig. 11b

Compare the slight rightward shift of both names on the corresponding detail from the same map's ed. 2 (1913), a consequence of the copper-plates not being aligned on press exactly as for the first edition. (Princeton University Library)

ΚΙΑΝΟΣ ΚΟΛΠΟΣ
ΚΙΟΣ
Ομανρμπεϊ
Κατυρλύ
Εγκιονρδζούχ
Μουραδ-ομπά
Διο-καγιά
Σαϊδικαζή
Χιο-καμισάκι
Χιώρδιχ
Καραμπαλζίκ
Αντσακιοί
Μαδκαρά
Λλυσαρ
Δεμιρδεσιόν
Καζικλή
Καρα-ιδίρ
Μπαράκιοϊ
Δεντάκλι
Ρεσα Λιμνη
Αδα-κιοϊ
Τεπετζίκ
Αραχιοί
Χασανκιοϊ
Παναϊρκιοί
Μπαλατ
Πλατανος
Κεδιά
Αρμουδλιοί
Οδαγενιτζέ
Ισόδια
Γοιλτσίχ
Μπαλικλή
Σουφορλουκ
Εσκιμπεϊ
Μάκου
Καστελλιον (Κεστελ)
Κηζηκλάρ
Δερμεμγκηζήκ
Σογανλύ
ΠΡΟΥΣΑ
Γεγκιτς
Καζαγιαλή
Δζεμλάρ
Δουτρα
(ΚΑΙΣΑΡΕΙΑ)
Καλαμπάκ
Ορτάλαρ
Μουδάτ
Ζενκαρα
(ΟΛΥΜΠΟΣ ΟΡ)
Ξερά γκαλια
Καπλού χαγια
ΚΕΣΙΣ ΔΑΓΗ
Μαυρα Δαγια
Μεγαλη Καμηλα
Μπαλικεσιρ
Μπαλα Χισαρ
Μπαλα Χισαρ
Μπαλα Χισα

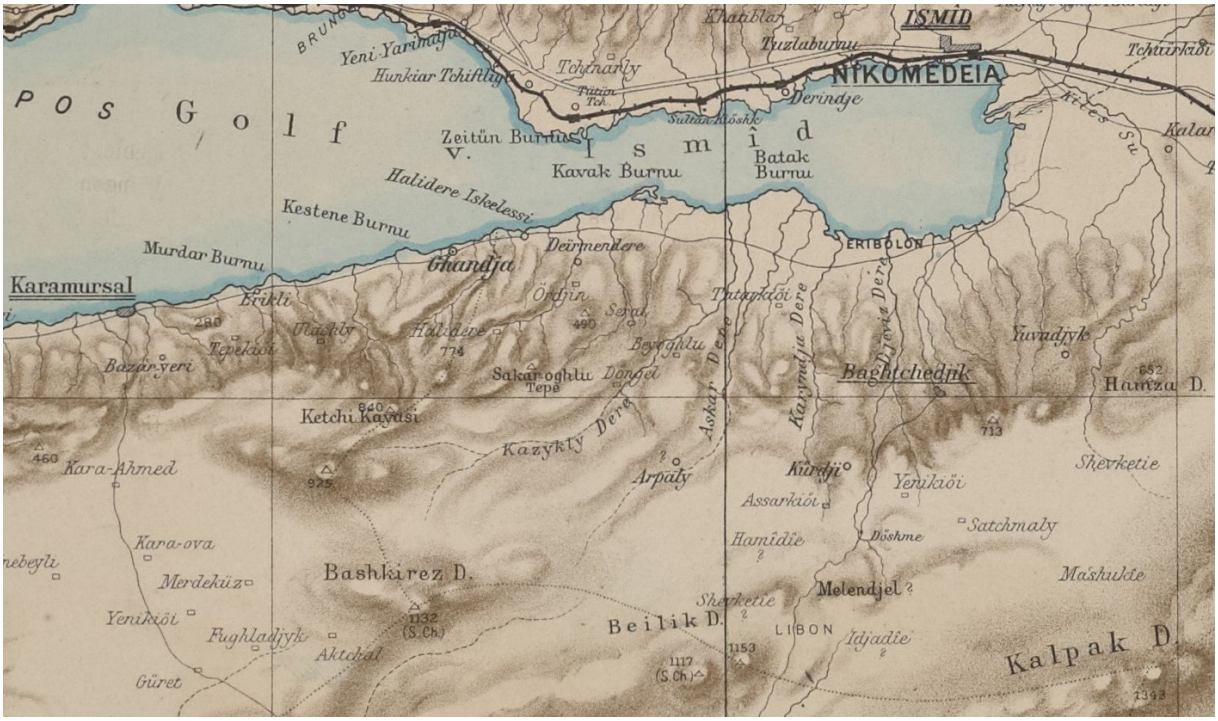


Fig. 13

Detail from *SpecK* (1:250,000), map III dated 1890. The numerous italicized names — many without a symbol, or with a square one; some followed by a question mark — attest to Heinrich Kiepert's reluctant reliance on Turkish or Greek sources for this region (as often elsewhere too). (Princeton University Library)

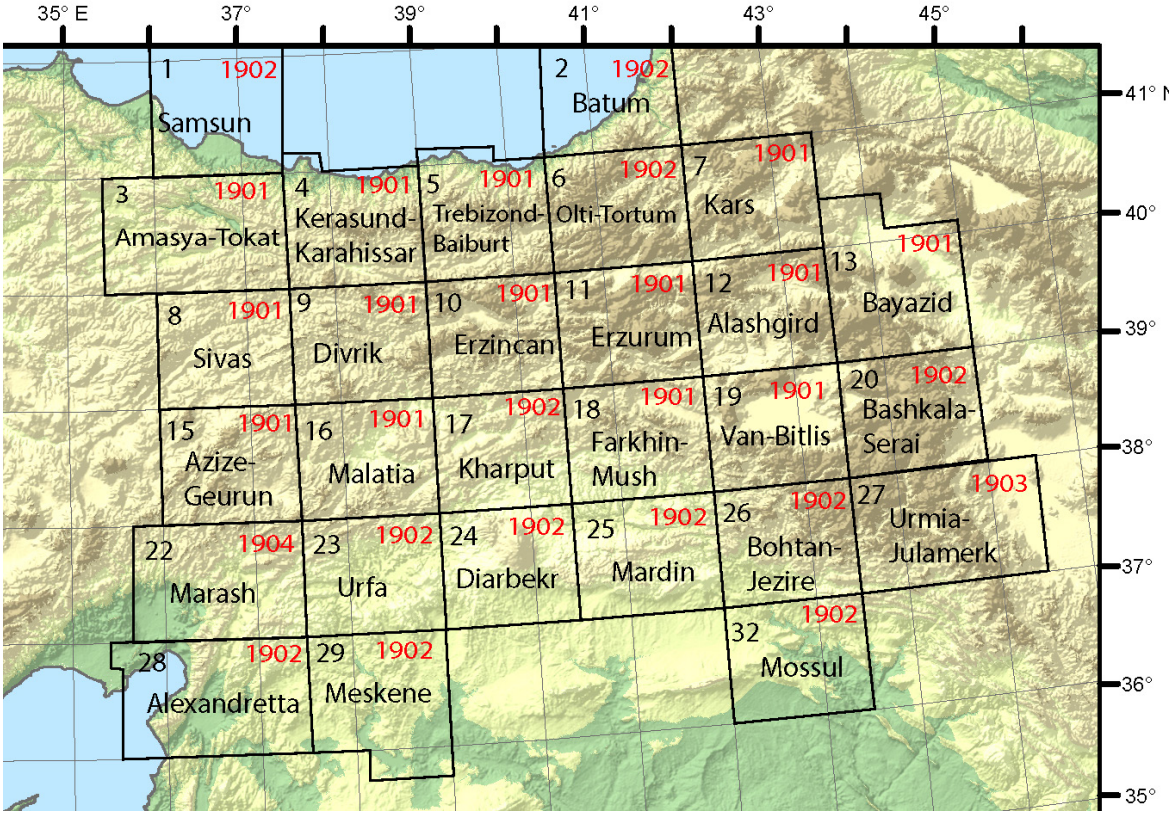


Fig. 14

Locator index of Ottoman territory mapped in the (officially secret) 1:250,000 scale British series *Eastern Turkey in Asia* (Intelligence Division War Office 1522) between 1901 and 1904. (Ancient World Mapping Center)

Fig. 15a

Detail from *KvK* (1:400,000) map BV ed. 1 undated [1902]. The high number of italicized names with a square symbol attests to reliance on Turkish sources for this region. (Princeton University Library)

Fig. 15b

Compare the corresponding coverage of the region on map 8 *Sivas* in the 1:250,000 scale British series *Eastern Turkey in Asia* (IDWO 1522) dated 1902. Many fewer settlements are shown here. Note the greater number of tints than Reimer budgeted for *KvK*. The contouring is only impressionistic. (National Library of Australia)

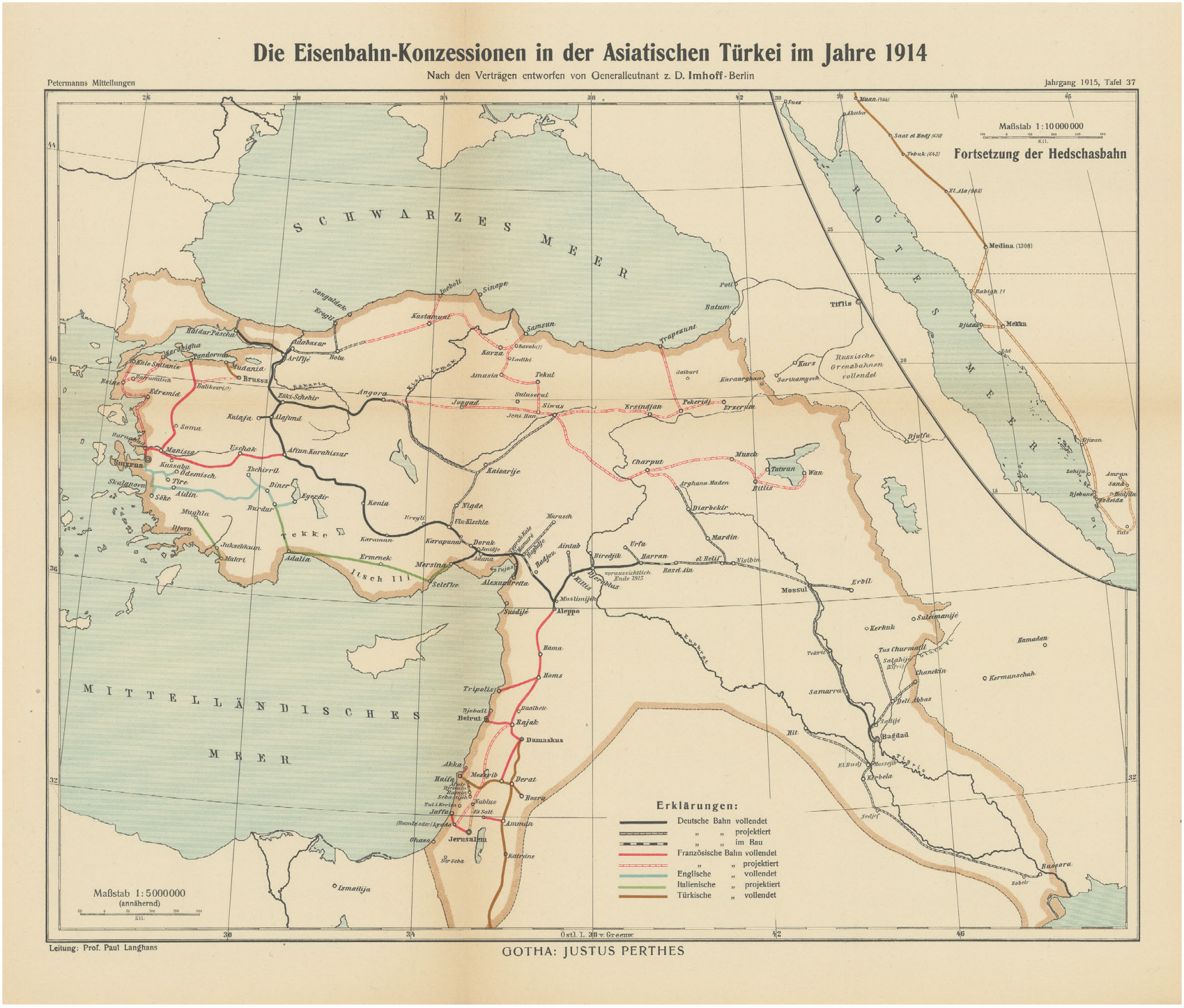


Fig. 16

Overview map (1:5,000,000) of railroads in Turkey completed, under construction and projected by 1914, as drafted by General Heinrich Imhoff. Note the two sections of CIOB main line shown as still under construction because of the dozens of tunnels and bridges required: Karapunar to Dorak (opened October 1918), and Baghdje to Badjou (opened December 1917). The projected CFOA line from Adabazar to Bolu and beyond drawn on *KvK* AII ed. 1 (1906) — but removed from it thereafter, and never drawn on AIII — is still shown here. (*Pet Mitt* 37 [1915] Taf. 37). (Princeton University Library)

Fig. 17

Detail from *KvK* (1:400,000) map CIII ed. 1 undated [1901], showing the region north and east from Konia where — in Ramsay's opinion quoted — Richard Kiepert's mapping was far from accurate. Note the two routes here credited to Friedrich Sarre, and compare the inset accompanying the map drawn for him by Richard Kiepert in 1896 [**Fig. 55**].
(Princeton University Library)

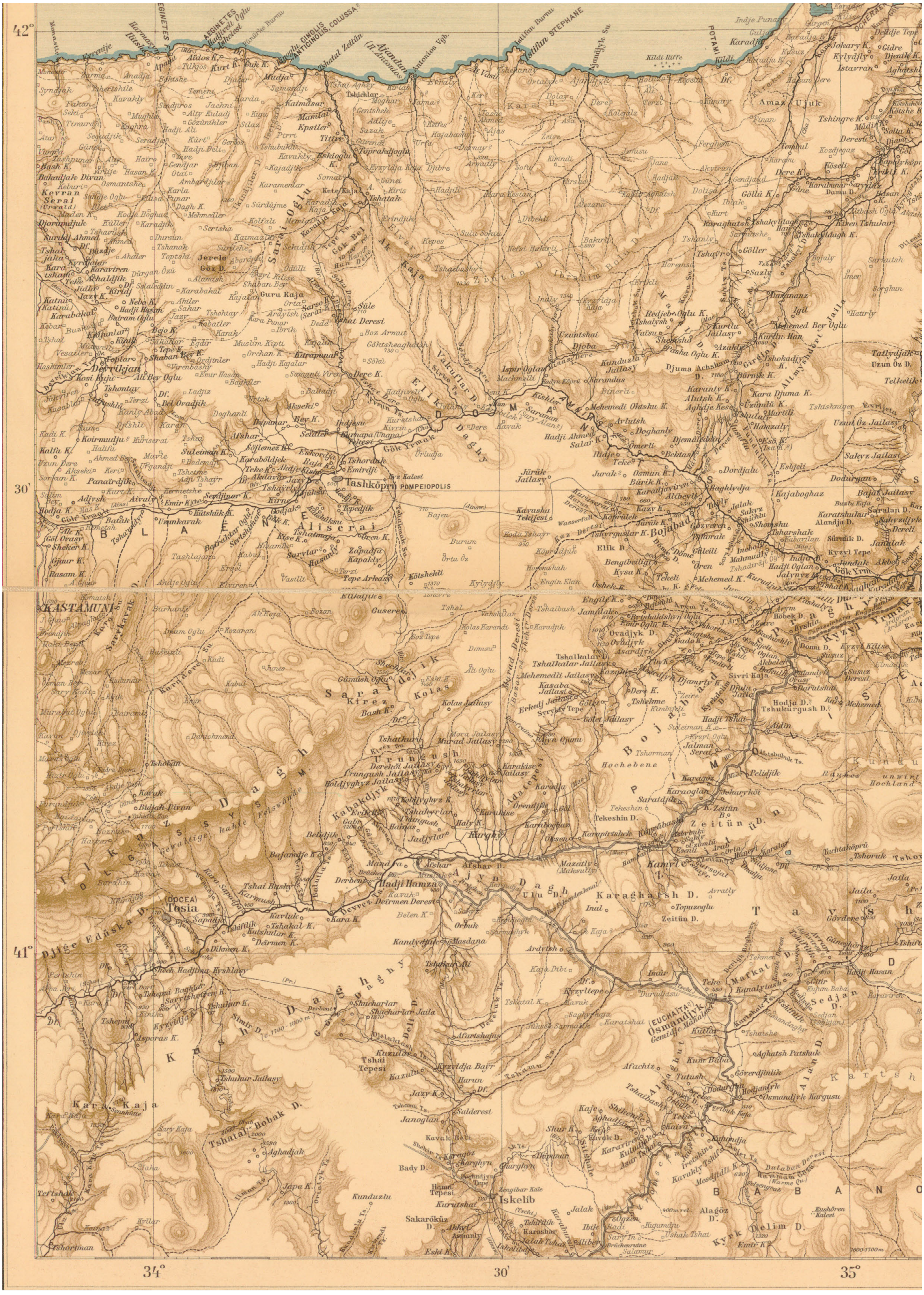


Fig. 18a

Detail from *KvK* (1:400,000) map AIV ed. 1 undated [1901]. Note in particular the placement of Kastamuni at the left margin. (Princeton University Library)

42°
30'
41°
34°
30'
35°
Ashat Zeitün
Istiaï Aghzy
Ajandun (Hl. Antonios)
Istifan (St. Stephanos)
Kaldi Riffe
Karadjik
Gildi
Evrak
Ai Vasil
Ortajyk
Ajandun
Kepedji
Amraz Ujuk
Tshingre K.
Deresu
Köseli
Dere K.
Karabunar Sarajdjik
Göllü K.
Ferghen
Tombuld
Kozdjegaz
Akvirak
Dolisa
Kurt
Karaghatsh Tshakyldaghlar
Tshakyldagh K.
Göller
Sazly
Bakanaaz
Igil
Mehemed Bey Oglu
Hatirly
Shemsho
Azakly
Tshakyldagh K.
Djuma Achsham D.
Djeba
Karanty K.
Hara Djuma K.
Uzundja
Martili
Tshishnigen
Hanzaly
Dogheandy
Omark
Jabanly
Dordjalu
Eskijeli
Baghlydja
Dodurgan
Kajaboghaz
Bojabad D.
Tshorak
Tshargushak D.
Tshargushak
Mahmudly
Hadji Oglan
Jalynyz Kaja
Gök Yrmak
Kyzyl Yrmak
Kyzyl Dagh
Kyzyl Kilisse
Susuz
Sivri Kaja
Tshalykalar D.
Tshalykalar Jailasy
Mehemedli Jailasy
Kasaba Jailasy
Erkedj Jailasy
Syryklytepe
Göller Jailasy
Hadji Tshaï
Hodja D.
Tshakyrgush D.
Hochebene
Karaoglan
Jokarykői
Saraidjik
Tekeshin D.
Karapirtshik
Kanyk
Mazatly (Maksudly)
Karaghaish D.
Topuzoglu
Zeitün D.
Inal
Ardytsh
Kara Djuma K.
Kum Baba
Göverdjinlik
Afachiz
Tatush
Dodurghu
Osmandjyk Kargusu
Aghatsh Patshuk
Pimolisa
Osmandjyk
Gemidje Mahalasy
Kutlak
Tshaïbash
Kaje
Aghadjik
Shur K.
Karavirenler
Kuldjak
Asar Tshaï
Irelshin
Karakly Tshiftlik
Mesdjidli K.
Hammam Göl
Balaban Peresi
Alagöz D.
Delim D.
Kushören Kalesi
Ajan Dagh
Afshar
Afshar D.
Hadji Hamza
Deirmen Derest
Karghy
Iskelib (DADYBRA?)
Sakaröküz D.
Bady D.
Hamu Tepesi
Kuruttshai
Jalak
Ögzen
Kagumdja
Ushak Tshaï
Sary In
Kyzyltepe
Tshaïtlik
Kurushak
Jalak Tshaï
Kara Kaja
Tshaïtal Hobak D.
Tshukur Jailasy
Janoglan
Salderesi
Kavak Beli
Karaghyn
Tshaï Tepesi
Kazulu
Jazy K.
Harun
Kuzular Ts.
Afarlishajas
Kandvdjuk
Masdana
Orbuk
Belen K.
Deirmen Derest
Kara Sapadja
Karluk
Kutshular K.
Deirmen K.
Tshaï Bashy
Karmusly
Grosser Ilgaz
Kleiner Ilgaz
(DOCEA)
Tosia
Asporas K.
Tshepni
Tshartman
Kaïnaz
Kyllar
Tshaïtal Dagh
Kuzulu Dagh
Kara Dagh
Kara Kaja
Bara Kaja
Sary Kaja
Aghadjale
Japa K.
Kunduzlu
Kunduzlu Ts.
Kara Dere
Kara Tshaï
Kara Tshaï Ts.
Kara Tshaï Jailasy
Kirez
Kirez Jailasy
Kolas
Kolas Jailasy
Kolas Karandi
Kolas Ts.
Seraidjik
Seraidjik Jailasy
Shechlar
Shechlar Jailasy
Gümüsh Oglu
Elikdjik
Gusere
Omarli
Domsu
Ali Oglu
Yemirdji
Imamly
Durash
Bozlepe
Tshaïbash
Tshaïbash Jailasy
Tshaïbash Ts.
Tshaïbash Ts.
Tshamu Ts.
Tshamu Ts.
Tshanuy Ts.
Tshanuy Ts.
Tshaïbash Ts.
Tshaïbash Ts.
Tshaïbash

Kiresun
Chalka Bunar
Kara Osmanlar
Dökmeler
Danishmend
Mihadjir K.
Jaghdjilar
Ashildar
Göktash
Kapulu D.
Wezyl Oren
Chedjish
Shifa D.
Tachtadjilar
Begdje
Jerdje
Soma
SANDAENA
GERME
Darchula
Delimanlar
Karalush
Tashdibi
Djumaly
Dere K.
Arpa Tepe
Kozanly
Ardan
Bubeler
Rashdibi
Ongiler
Belbunar T.
Kösse Dede
Tepe Bagh
Gelembe Ts.
KYRKAGHAT'SH
Enas D.
Enas
Pughladjyl T.
Kalem K.
Jaila
Bajuk Oba
Ada T.
Tshalyk Bey Oba
Tshan K.
Suleiman K.
Tshamlydja D.
NACRASA
ACRASUS
Kajadibi
Baker
Jataghan K.
Jataghan T.
Tshoban Isa
Laja K.
Gelembe
Kynyk
Busnatsh
Derbent
Sengid
Alan
Karadjalar
Suharadji
Aladjalar
Karadjaghatsh
Bajat
Budallar
Pudja
Ashobanlar
Chalkavly
Tshobanlar
Goldjük Dam
Goldjük
Demirtash
Aktshe Kysrak
Kurugöldjük
Deretshinar
Kozpunar
Tshekirdekli
Turudjüler
Nazin
Kadi K.
Highadjitsh
DIDYMOTICHE
Balatly
Kelemitsh
Jaghdji Beder
Kajaly Dere
Hamidije
Ibeller
Karaghatsh
Alaka
Djindj
Kyrylgöl
Mandra
Malkaja
Aladja Atli
Bilaredjik
Koulu
Ishekli
Ishekli Dere
Ishekli Kara Dere
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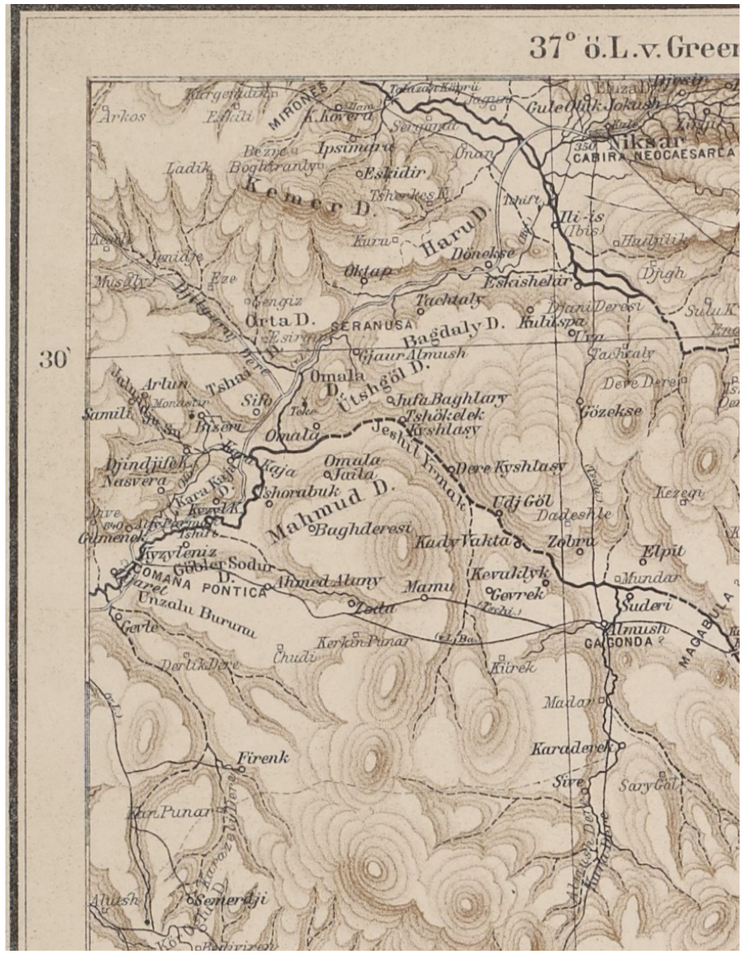
Ishekli Ova Kara Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere
Ishekli Ova Kara Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai
Ishekli Ova Kara Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere
Ishekli Ova Kara Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai Ova Dere Tshai


37° ö.L.v.Green
30'
Kemer D.
Haru D.
Orta D.
Bagdaly D.
Tshgöl D.
Mahmud D.
Ak Dagh
Ikiz D.
Ikiz Dagh
Ikiz Dere
Ikiz Dere Kyshlasy
Ikiz Dere Kyshlasy
Ikiz Dere Kyshlasy

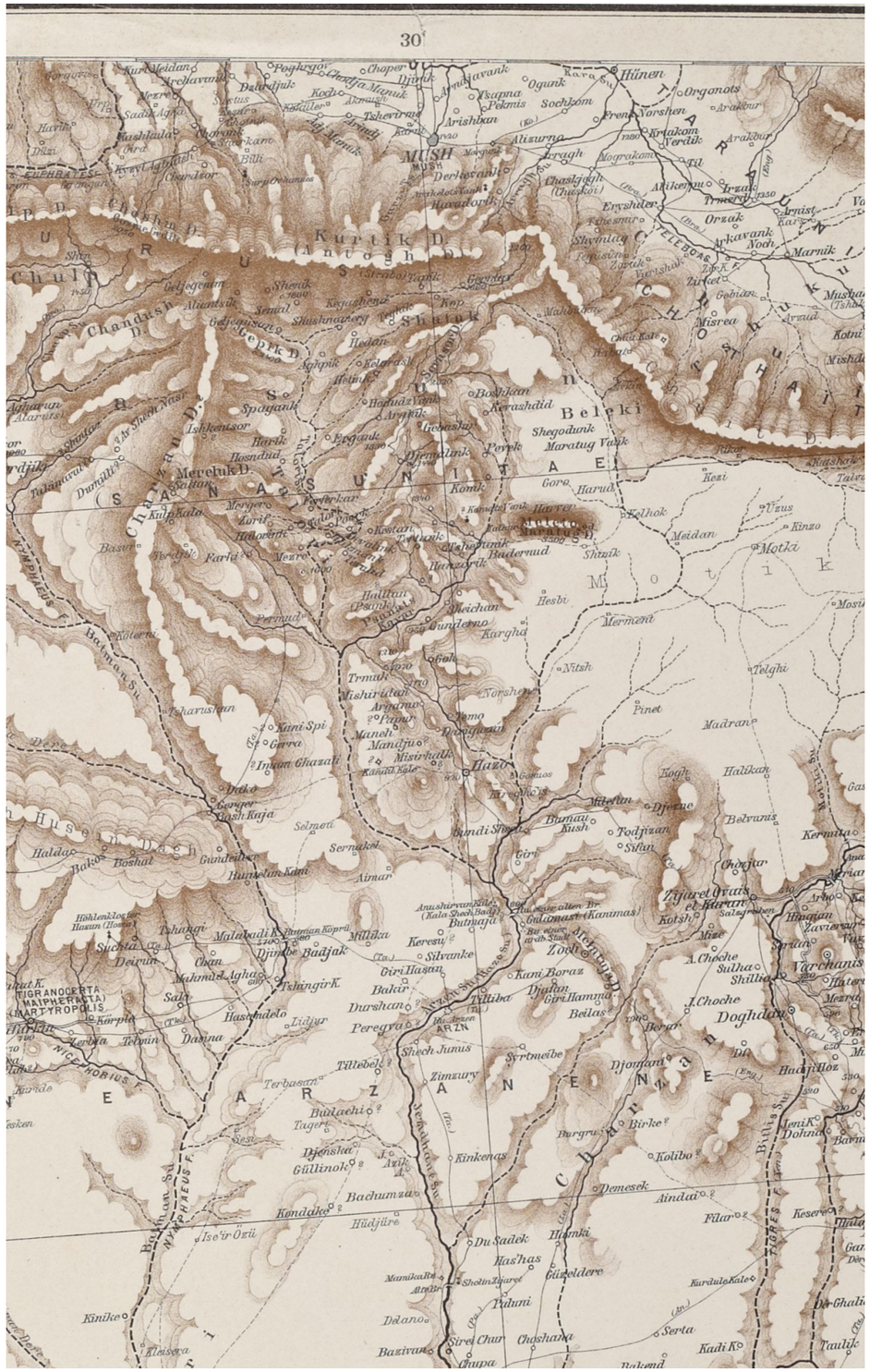


Fig. 21a

Detail from *KvK* (1:400,000) map CVI ed. 1 (1904). (Princeton University Library)

Fig. 21b

Comparison with the corresponding detail from the map's second edition (1914) demonstrates extensive revision to the landscape and its settlements from Mush far southwards in the light of new informants' contributions. (Princeton University Library)

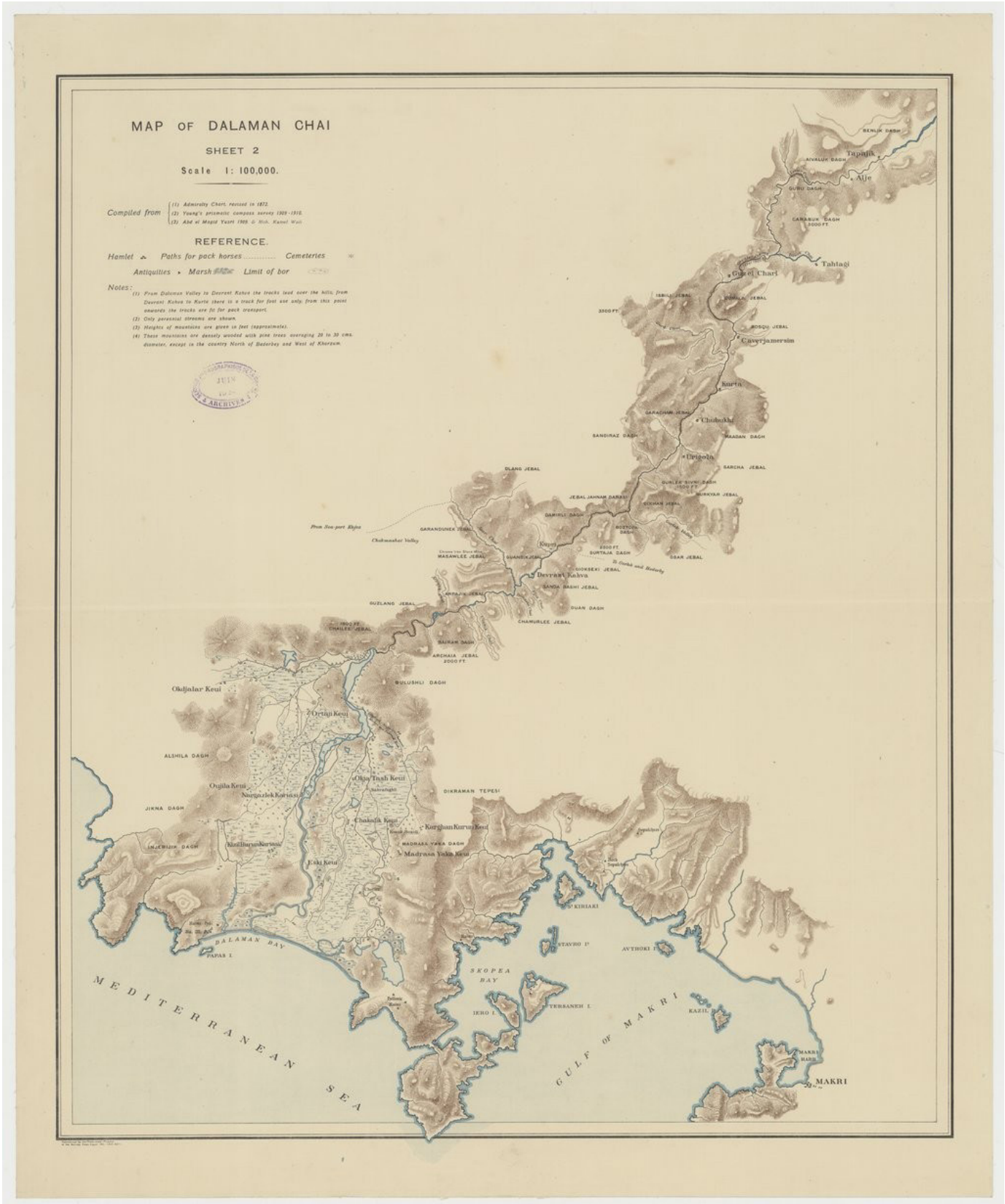


Fig. 22

Sheet 2 of three-sheet (none with co-ordinates or graticule) *Map of Dalaman Chai* (1:100,000) produced by the Survey Department, Egypt in 1911, with (it seems) one British and two Egyptian staff members credited. Its availability prompted Richard Kiepert to revise his rendering of the entire river valley, especially the approach to the Mediterranean: see **Fig. 23b** below. (BNF)

Fig. 23a

Detail from *KvK* (1:400,000) map DII ed. 1 (1905). Bottom right, note the record of variant names for C. Suvla attested by *Stadiasmus Maris Magni* and Strabo: see further *GAGW* 877. No *KvK* map provides a key to abbreviations for ancient sources such as "Stad." (Princeton University Library)

Fig. 23b

On the corresponding detail from the map's second edition (1914), the rendering of the Dalaman river's approach to the Mediterranean has been substantially revised in the light of the Survey Department, Egypt's 1911 map (**Fig. 22** above). For Richard Kiepert to credit two individuals by naming them only on the map itself — in particular when one seems to be non-European — is exceptional. (Princeton University Library)

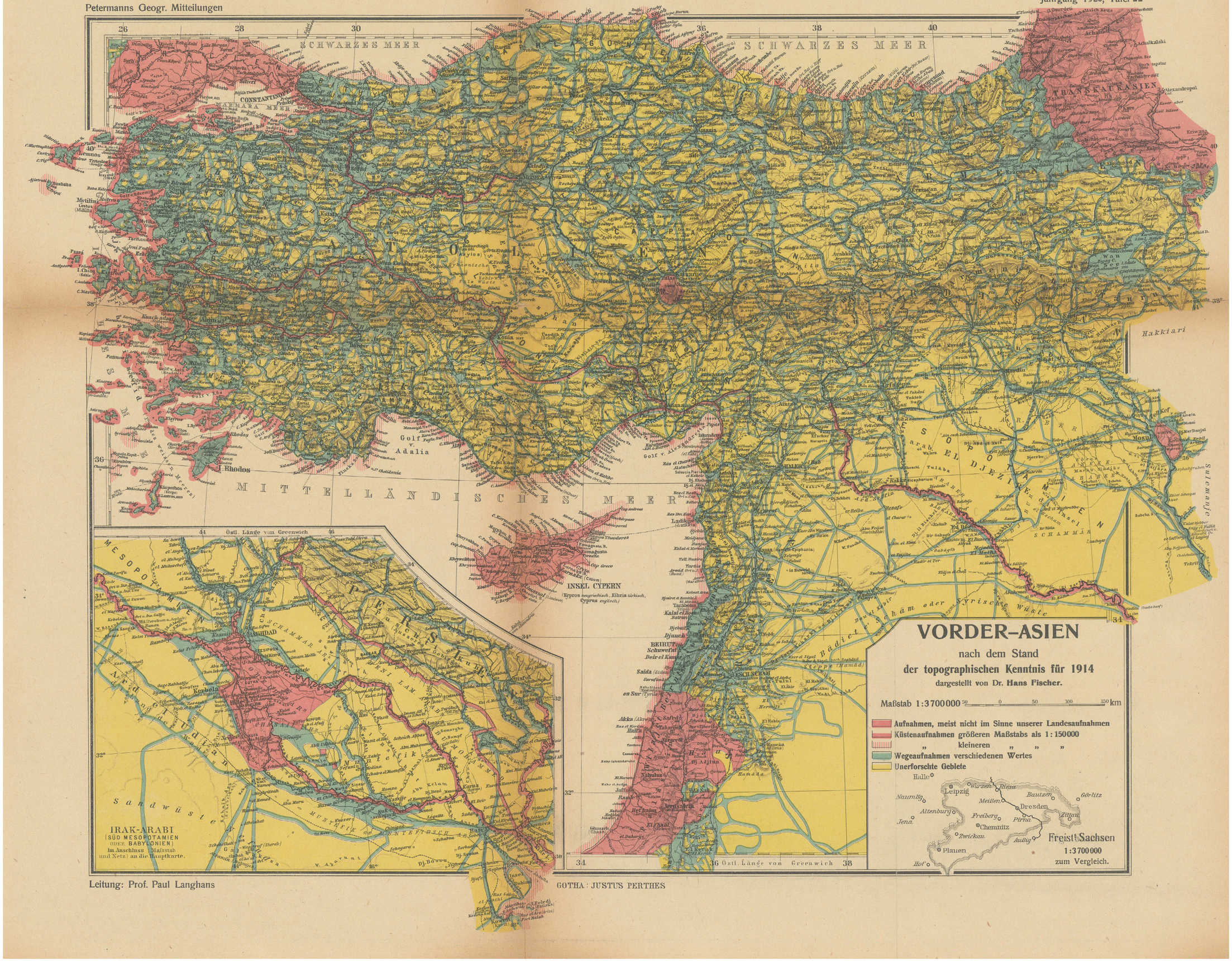


Fig. 24

Overview map (1:3,700,000) of the Near East drawn by Hans Fischer to illustrate the varying levels of knowledge about its topography achieved by 1914. From a cartographic perspective, it is striking — and understandable — that this map should be based primarily upon travelers' journeys, just as the Kieperts' *SpecK* and *KvK* are. The patchiness of their coverage is reflected in the overview, and at the same time understated because of the small scale — the very point made by Heinrich Kiepert in promoting *SpecK* (1890, 6, quoted above)!
(*Pet Mitt* 42 [1920] Tafel 22) (Princeton University Library)

Fig. 25

Kayseri: Ottoman copy of *KvK* (1:400,000) map CIV ed. 2 (1911). At least 14 other *KvK* maps were copied likewise by the Ottoman General Staff from 1915 onwards, with content irrelevant to contemporary use omitted (especially ancient names and crediting of travelers). This copy of CIV is dated 1921 — a year of exceptional crises in Asia Minor — but it is possible that the map had already been copied earlier too. Note that here the entire course of the CIOB railroad is now fully inked (bottom left). On *KvK* CIV ed. 2 it was fully inked only to Eregli, although by July 1911 open further east as far as Ulu Kyshla. (BNF)

Fig. 26

Reşadiye: dated 1911, one of the earliest maps issued in the Ottoman General Staff's 'new style' 1:200,000 series (region south-east of Niksar, *KvK* BV). Note the unbroken comprehensive coverage based on rapid survey which made contouring (at 50 metre intervals) possible; also the use of green for wooded areas, and blue not only for open water but also for rivers. To judge by the marginal additions in ink (*Reschadiéh* in particular), this map was shared with German staff, and later captured by the British; hence its eventual deposit in the Bodleian Library, Oxford. The 1910 date added is a slip.
(Bodleian Library, Oxford)

MAP ROOM
28FEB.1916
LONDON

Fig. 27

Anatolia: locator index map for this series at 1:210,000 issued in 1915 by Russia's Caucasian Military Staff. For the purpose, 20 captured Ottoman 'new style' maps at 1:200,000 produced by 1914 were translated, and the scale was then reduced slightly (in line with the Russian sequence of scales). Such copying is a tribute to the new high quality of the Ottoman General Staff's cartography. (Royal Geographical Society, London)

LYKIA
NACH DEN ERGEBNISSEN DER IN DEN JAHREN 1881-1882 AUSGEFÜHRTEN
ÖSTERREICHISCHEN EXPEDITIONEN
NAMENTLICH DEN MESSUNGEN UND ZEICHNUNGEN DER HERREN
O. BENNDORF, E. PETERSEN, G. NIEMANN, F. v. LUSCHAN, E. LÖWY
MIT ERGÄNZUNG DURCH DIE ITINERARE FRÜHERER REISENDEN
NAMENTLICH DIE KARTE VON T.A.B. SPRATT
REDIGIRT UND GEZEICHNET VON H. KIEPERT.
Maßstab 1:300,000.
VERLAG VON CARL GEROLD'S SOHN IN WIEN 1885.

Fig. 28a

Fig. 28a, b "Lykia" (1:300,000), two-part map drawn by Heinrich Kiepert and published in 1885 to accompany Otto Benndorf and Georg Niemann's *Reisen in Lykien und Karien* (1884). (Princeton University Library)

30°
28°
OLBASA
Kemer
Tefni
KIBYRA
Chorzum
Dalkere
Kyzyltasch D.
Dermil
BALBURA
BUBON
OINOANDA
ARAXA
Elmaly D.
ELMALY
Salyr D.
Jumruk D.
Ak Dagh
KOMBA
TLOS
PODALIA
Ali Fachreddinlgöi
Istanos
IDEBESOS
Kyzyldja D.
Kasch
KANDYBA
ARYKANDA
AKALISSOS
TERMESSOS
Güllük Dagh
Iskenderköi D.
Bei D.
Oren D.
Posary D.
Tachtaly D.
SOLYMA
PHASELIS (PITYUSA)
ATTALEIA
ADALIA
MARMARA
GAGAI (PALAIAPOLIS)
PHOINIKUS (OLYMPOS)
RHODIAPOLIS
KORYDALLA
OLYMPOS
LIMYRA
MYRA
TRYSA
KYANEAI
PHELLOS
ANTIPHELLOS (HABESOS)
APERLAI
SURA
MASIKYTOS
ARSADA
XANTHOS (ARNE)
ARNEAI
MEGISTE (KISTHENE)
Kastelorizo I.
Meis
RHODE
Fineka B.
Kemer Dagh
Rahat Dagh
Suzuz Dagh
Karadja Dagh
Kyzyldja Dagh
Ak Dagh
Kirkbunar D.
Güdeler D.
Maschad D.
Eldirek D.
Karindja D.
Jumruk D.
Kyzyltasch D.
Kyzyldja D.
Iskenderköi D.
Bei D.
Oren D.
Posary D.
Tachtaly D.
Kemer D.
Delde D.
Kara D.
Gurma D.
Siwri D.
Tilian D.
Ulu Dag
Kyzyltasch Dagh
Kyzyldja Dagh
Tschobanlu Dagh
Tschaman D.
Aladja Dagh
Kara Dagh
Kara Dag
Kara Dag
Kara Dag

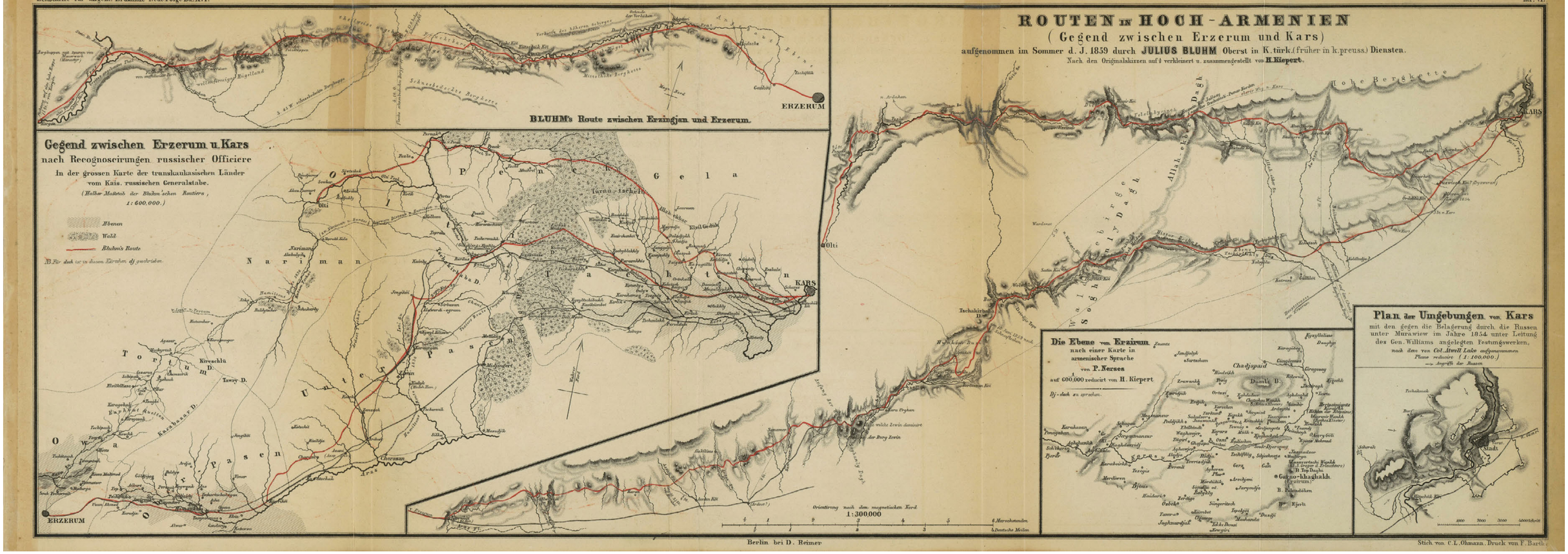

ROUTEN in HOCH-ARMENIEN
(Gegend zwischen Erzerum und Kars)
aufgenommen im Sommer d. J. 1859 durch JULIUS BLUHM Oberst in K. türk. (früher in k. preuss.) Diensten.
Nach den Originalskizzen auf 4 verkleinert u. zusammengestellt von H. Kiepert.
BLUHM's Route zwischen Erzingjan und Erzerum.
Gegend zwischen Erzerum u. Kars
nach Recognoscirungen russischer Officiere
In der grossen Karte der transkaukasischen Länder vom Kais. russischen Generalstabe.
(Halber Maßstab der Blumm'schen Routiren, 1:600,000.)
Ebenen
Wald
Bluhm's Route
ERZERUM
KARS
Olti
Tschakirbend
Die Ebene von Erzirum
nach einer Karte in armenischer Sprache
von P. Nerses
auf 600,000 reducirt von H. Kiepert
Plan der Umgebungen von Kars
mit den gegen die Belagerung durch die Russen unter Murawiew im Jahre 1854 unter Leitung des Gen. Williams angelegten Festungswerken,
nach dem von Col. Atwell Lake aufgenommenen Plane reducirt (1:100,000.)
Angriffe der Russen
Stadt
Orientirung nach dem magnetischen Nord.
1:300,000
Berlin bei D. Reimer
Stich von C. L. Ohmann. Druck von F. Barth

Fig. 29

Julius Bluhm's sketch of his travels in 1859 "Routen in Hochen Armenien (Gegend zwischen Erzerum und Kars)," drawn for publication at 1:300,000 (much reduced from Bluhm's original scale) by Heinrich Kiepert in *Z. allgem. Erdk.* 16 (1864) Taf. VI. Insets include (at half this scale) Bluhm's version of a Russian military reconnaissance map of the same region. Note that the scalebar measures in marching hours ("Marschstunden") first, with the equivalent in "Deutsche Meilen" below. (Staatsbibliothek zu Berlin – Kartenabteilung)

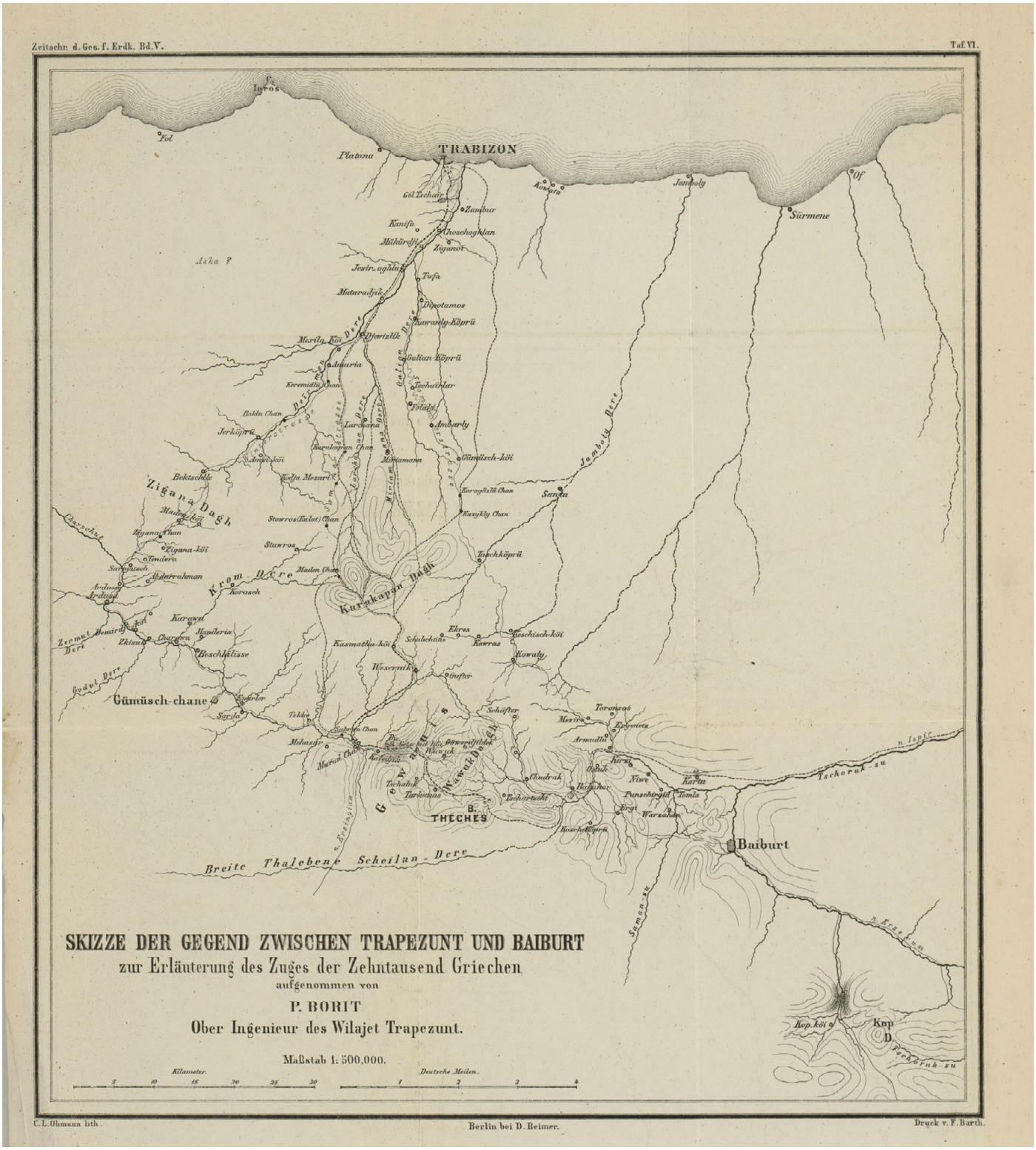


Fig. 30

"Skizze der Gegend zwischen Trapezunt und Baiburt zur Erläuterung des Zuges der Zehntausend Griechen" (1:500,000), map drawn by Heinrich Kiepert for his article co-authored with P. Borit (*sic*), "Der Berg Theches in Xenophon's Erzählung des Rückzuges der Zehntausend," *Z. Ges. Erdk. Berlin* 5 (1870) Taf. VI. (Staatsbibliothek zu Berlin)

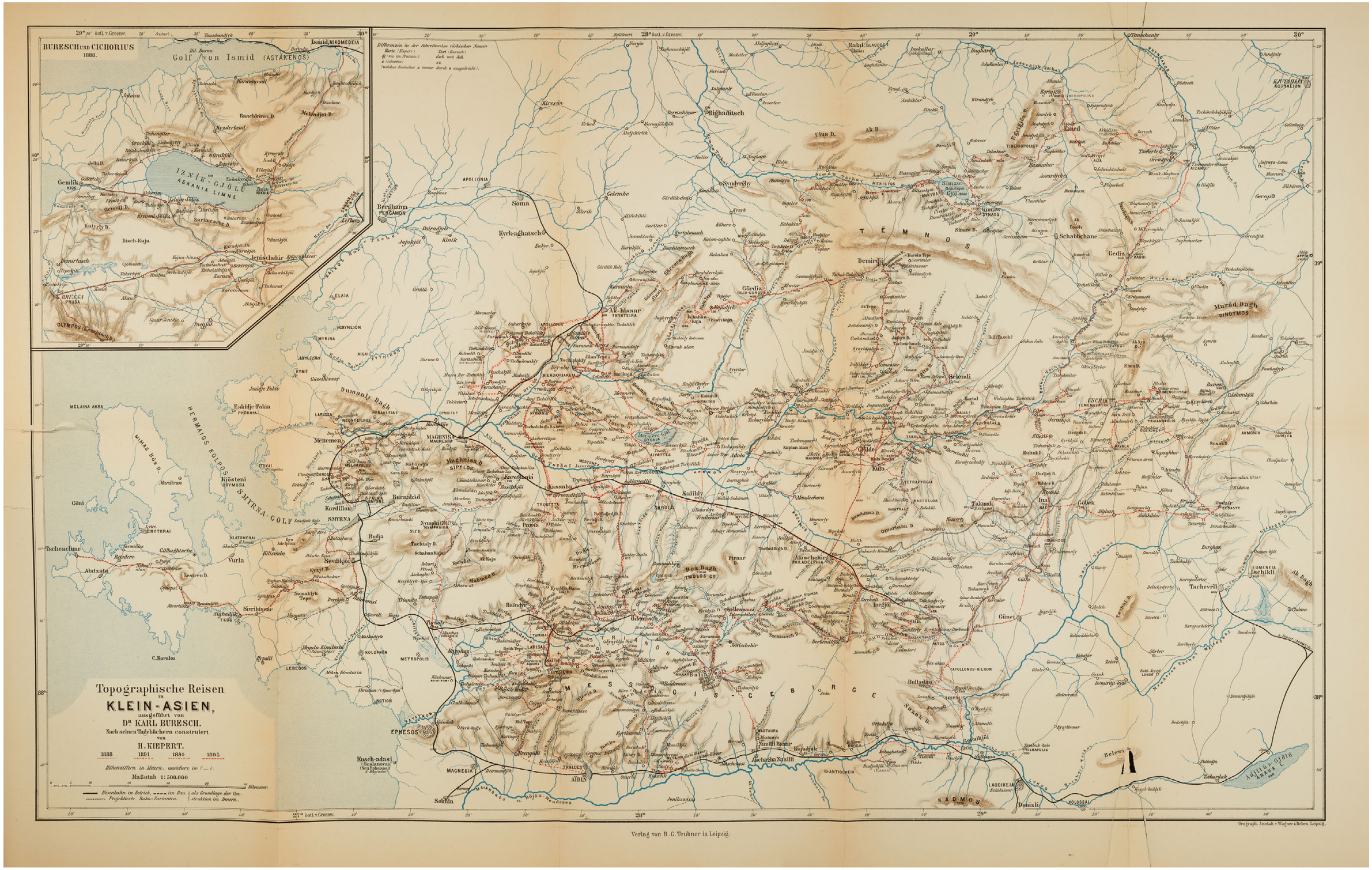


Fig. 31

"Topographische Reisen in Klein-Asien ausgeführt von Dr Karl Buresch. Nach seinem tagebüchern construiert von H. Kiepert" with inset "Buresch und Cichorius 1888" (1:500,000), map produced for the memoir by Otto Ribbeck (1898). (UNC Chapel Hill)

ITINÉRAIRES
DE M. ERNEST CHANTRE
en 1893 et 1894
construits sous la direction de M. HENRI KIEPERT à Berlin 1897
Détails du passage de l'Antitaurus, 3-14 Juin
(double échelle de la carte générale)
AMASIA
TOKAD
KAISARIÉ
ADANA
KONIA
Tchangri
Iskelib
Tehoroum
Hadjikeui
Tourkhal
Erkeré D.
Alan D.
Emir D.
Devedji D.
Tchamlu bel D.
Idris D.
Kaledjik
Yozgat
Akdagh Maaden
Kara Maghara
Soulouserai
Keme
Bolous
Maasar
Mutija
Saman Tepé
Boyaluk
Konak sou
Baïrak D.
Tchelebi D.
Pacha D.
Karadja D.
Hassan D.
Melendiz D.
Mia D.
Ak Dagh
Kirchehir
Nevchehir
Nigdé
Bor
Akserai
Develi Karahissar
Kotch-hissar
Touz-tcheullu
(Marais salé (lac) TATTA)
Saouradi
Breïck
Kaisarié
Tarsous
Mersina
Karatach-Bouroun
Iskenderoûn
(Alexandrette)
Payâs
Osmanié
Sis
Kars
Ladjin
Boulghar D.
Dumbelek D.
Karaman
Mout
Ermenek
Selevké
Tchelinderé
Ak gueul
Erekli
Karabounar
Beklik
Ilissera
Sidiré
Diélé
Nemroun
Gulek Boghaz
Gulek Kalé
Bazanti
Kourkma Sou
Boulghar Maaden
Beveketli Maaden
Ouloukachla
Anavarsa
Saigetchid
Boudroum
Tchakmak
Sarikaya
Kayapounar
Khodjali pounar
Kavak
Kaiabat
Temirli Hammam
Kara Hammam
Merkez Hammam
Sei Hammam
Kizildja Hammam
Aghiran
Ganek
Tchangri
Bevad
Tchekrek
Koroundjak
Yozgan
Tchekrek Tchaï
Deli Tchaï
Kara-ova
Tchakyas-Sou
Maaden Dere
Kara Dere
Kara Tchaï
Kara Sou
Kara Irmak
Kizil Irmak
Boudak ezuzu
Medjid ezuzu
Tchoroum Sou
Tchaï Dondé Tchaï
Mauzlak Sou
Sei Tchaï
Kara Tchaï
Kara Sou
Kara Tchaï
Kara Sou
Kara Tchaï
Kara Sou

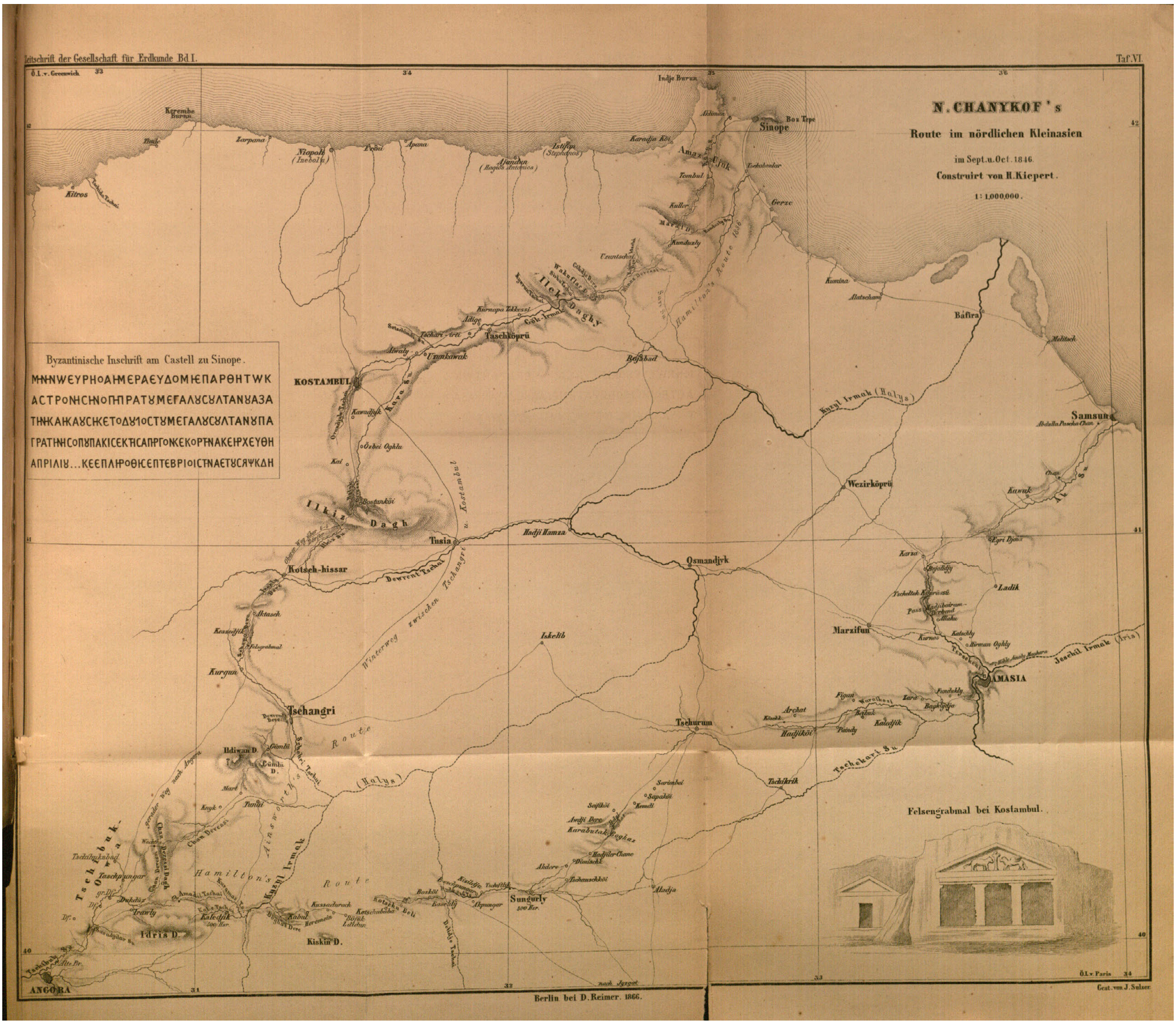


Fig. 33

"N. Chanykof's Route im nördlichen Kleinasien im Sept. u. Oct. 1846" (1:1,000,000), map (Taf. VI) drawn by Heinrich Kiepert for N. Chanykoff (*sic*), "Reise im nördlichen Kleinasien im Jahre 1846," *Z. Ges. Erdk. Berlin* 1 (1866) 415–35. (UNC Chapel Hill)

Fig. 34

"A map of part of Syria from an actual survey" in Alexander Drummond, *Travels through Different Cities of Germany, Italy, Greece, and Several Parts of Asia as far as the Banks of the Euphrates* (1754) facing p. 205. Aleppo is situated top left. No scale is stated, but there is a scalebar, albeit with no unit specified (presumably English miles). (Princeton University Library)

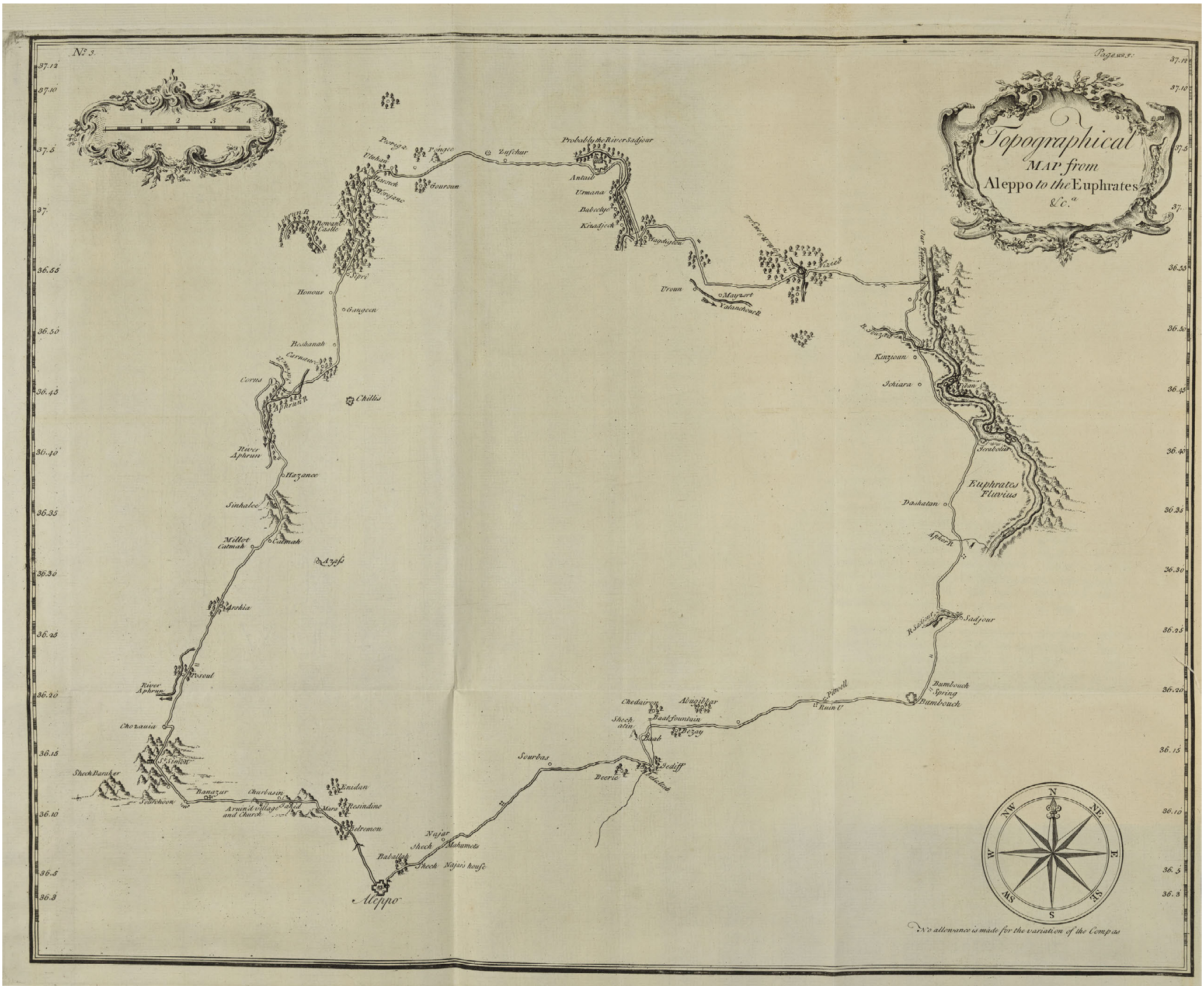


Fig. 35

"Topographical map from Aleppo to the Euphrates" in Alexander Drummond, *Travels through Different Cities of Germany, Italy, Greece, and Several Parts of Asia as far as the Banks of the Euphrates* (1754) facing p. 225. Two different routes from Aleppo (near bottom) are shown. No scale is stated, but there is a scalebar, albeit with no unit specified (presumably English miles). (Princeton University Library)

Reisen in Kurdistan 1910

Petermanns Geogr. Mitteilungen — Nach den eigenen Photographien und Routenaufnahmen konstruiert und gezeichnet von **Dr. Heinrich Freiherrn v. Handel-Mazzetti** — Jahrgang 1912, II, Tafel 17.

II.
Von **Arghana** über
Diarbekir, Mejafarkin und das **Sassun** nach **Sert**
mit Besteigung des **Meleto Dagh**

Maßstab 1 : 400000

Kilometer

Erklärung der Zeichen:

- Meine Reiseroute
- Aufnahmepunkte der zur Konstruktion benutzten Photographien
- Photogrammetrisch bestimmte wichtigere Punkte
- Durch doppelte Peilung oder einerseits durch Photographie, anderseits durch Schätzung nach verläßlichen Anhaltspunkten bestimmter Punkt
- Telegraphenstation
- Almhütten (Jaila)
- Zeltlager
- Ruine
- Quellen
- Ortslagen nach einheimischen Angaben, von mir nicht gesehen

Periodische und immer wasserführende Bachläufe sind nicht unterschieden

DER MELETO DAGH 1:125.000

I.
Von **Urfa** über **Kjachta** nach
Malatja und **Is Oghlu**
mit Abstechern auf den
Nemrud- und Ak-Dagh

Maßstab 1 : 400000

Übersicht der Reisewege der
Mesopotamien-Expedition
des Naturwissenschaftlichen Orientvereins in Wien 1910
Maßstab 1 : 3700000

Gemeinsame Routen von Dr. H. Freiherrn v. Handel-Mazzetti und Dr. V. Pietschmann
Route von Dr. H. Freiherrn v. Handel-Mazzetti
Route von Dr. V. Pietschmann

III.
Die Chaldäerdörfer
zwischen
Dschesiret-ibm-Omar und **Simel**
Nach Angaben von
Guriel Gorgis Homme aus **Schios**

Maßstab 1 : 400000

Leitung: Prof. Paul Langhans

GOTHA: JUSTUS PERTHES

Autogr. von C. Schmidt

Fig. 36

"Reisen in Kurdistan 1910. Nach den eigenen Photographien und Routeaufnahmen konstruiert und gezeichnet von Dr. Heinrich Freiherrn v. Handel-Mazzetti," three maps (1:400,000 scale) on one sheet, with overview map "Mesopotamien-Expedition 1910" (1:3,700,000), in *Pet Mitt* 58.2 (1912) Taf. 17 to illustrate his article (pp. 133–37) with the same title. (Princeton University Library)

Fig. 37a

Fig. 37a, b "Prof. C. Haussknecht's Routen im Orient 1865–1869, I u. II *Syrien, Mesopotamien und Süd-Armenien*" (1:600,000), map drawn by Heinrich Kiepert (Berlin: Reimer, 1882). (Staatsbibliothek zu Berlin)

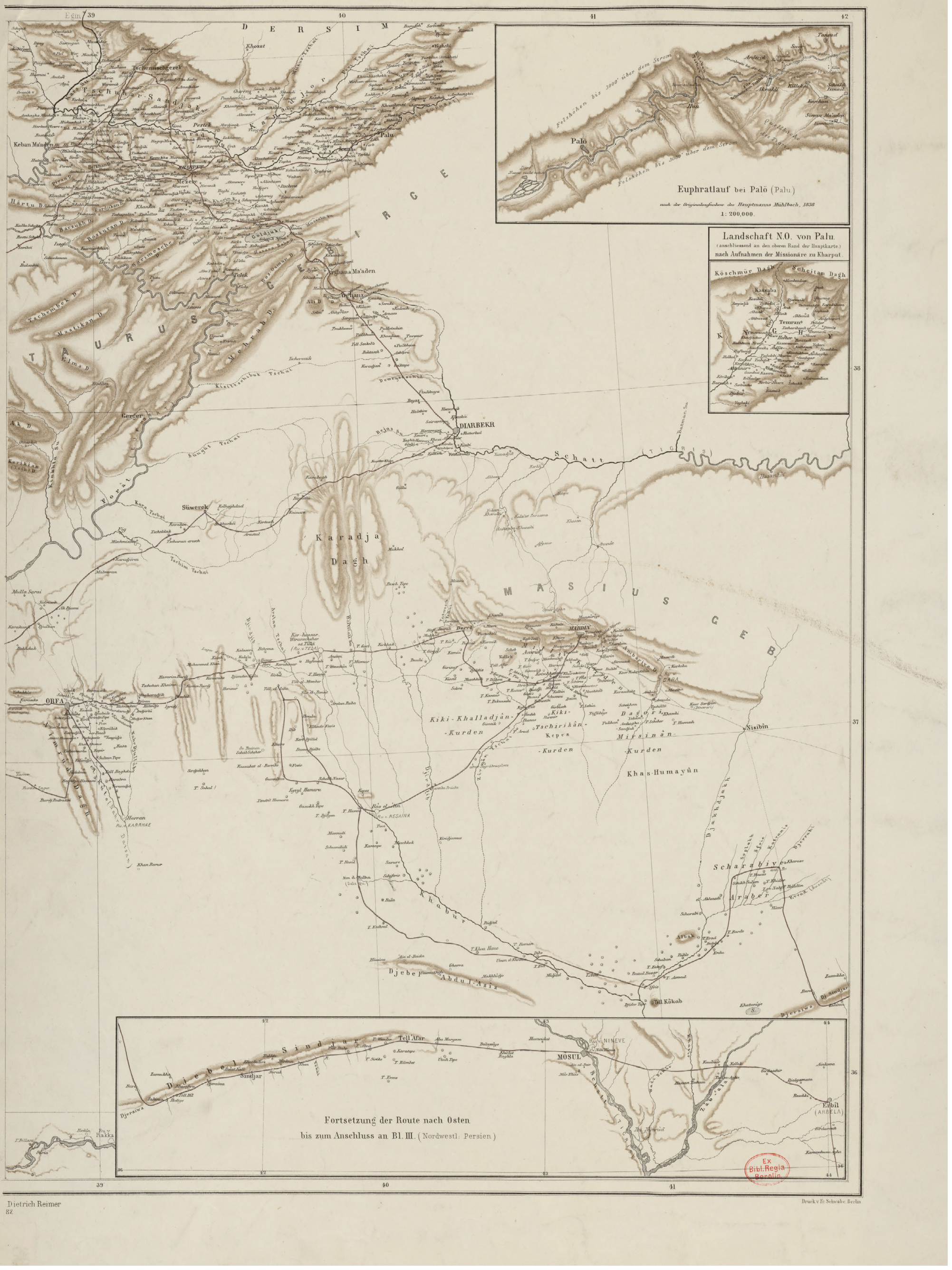

Euphratlauf bei Palŏ (Palu)
nach der Originalaufnahme des Hauptmanns Mühlbach, 1838
1: 200,000.
Landschaft N.O. von Palu.
(anschliessend an den oberen Rand der Hauptkarte.)
nach Aufnahmen der Missionäre zu Kharput.
Fortsetzung der Route nach Osten
bis zum Anschluss an Bl. III. (Nordwestl: Persien)
DERSIM
TAURUS
KURDISTAN
MASIUS
Karadja Dagh
Khabur
Djebel Sindjar
Djebel Abdul-Aziz
Kiki-Khalladjân-Kurden
Tschirikân-Kepes
Mirsinân-Kurden
Khas-Humayûn
Schahrabiyân Araber
Tschemtschek D.
Mastikan D.
Elma D.
Mehrab D.
Ak D.
Hartu D.
Barzukh D.
Bozkuran D.
Karmerkhan
Tschakan Khaiser
Harerin Burdj
Kasr Sarkûr
Tschakdilli
Tell Baghdan
Tell Kôkab
Ex Bibl. Regia Berolin.
Dietrich Reimer
82
Druck v. Fr. Schwabe, Berlin

Fig. 37b

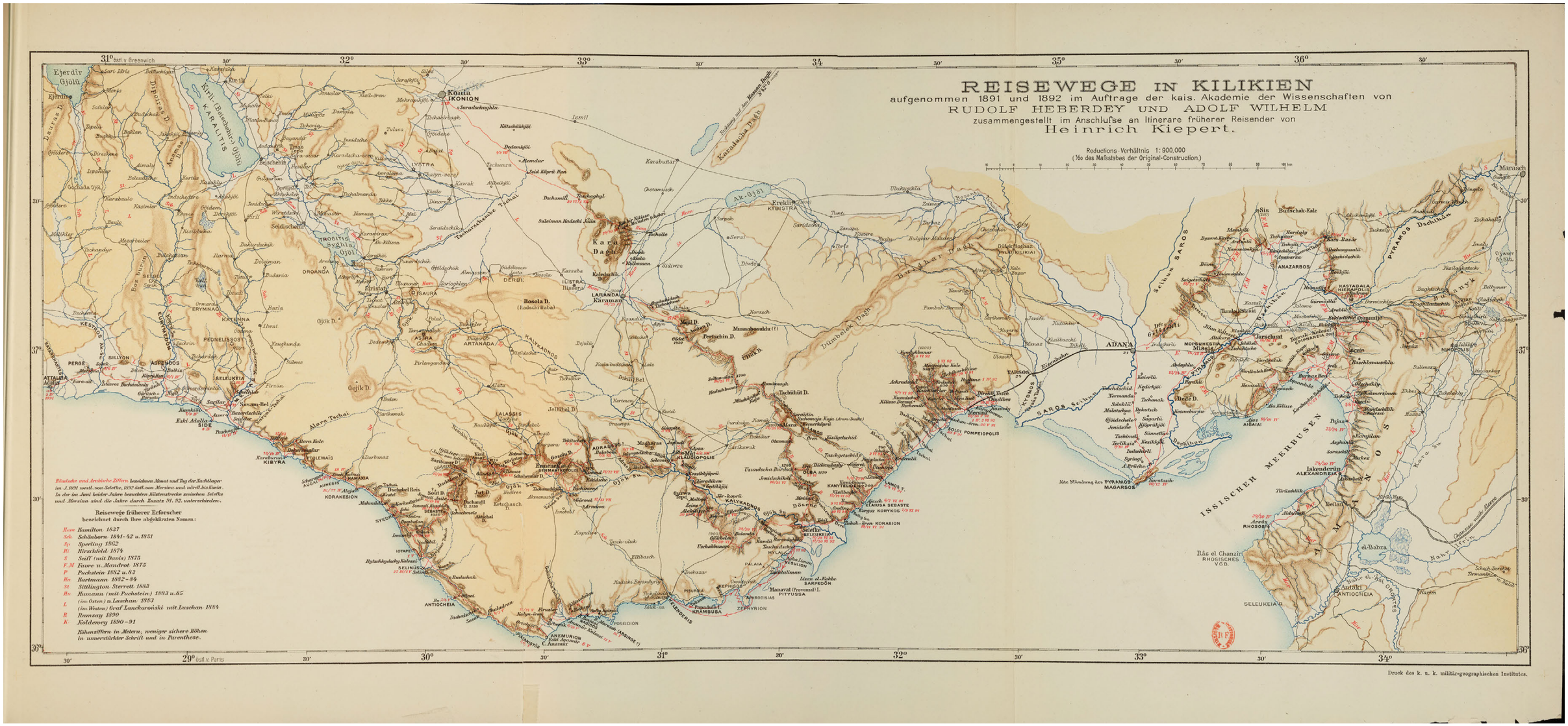
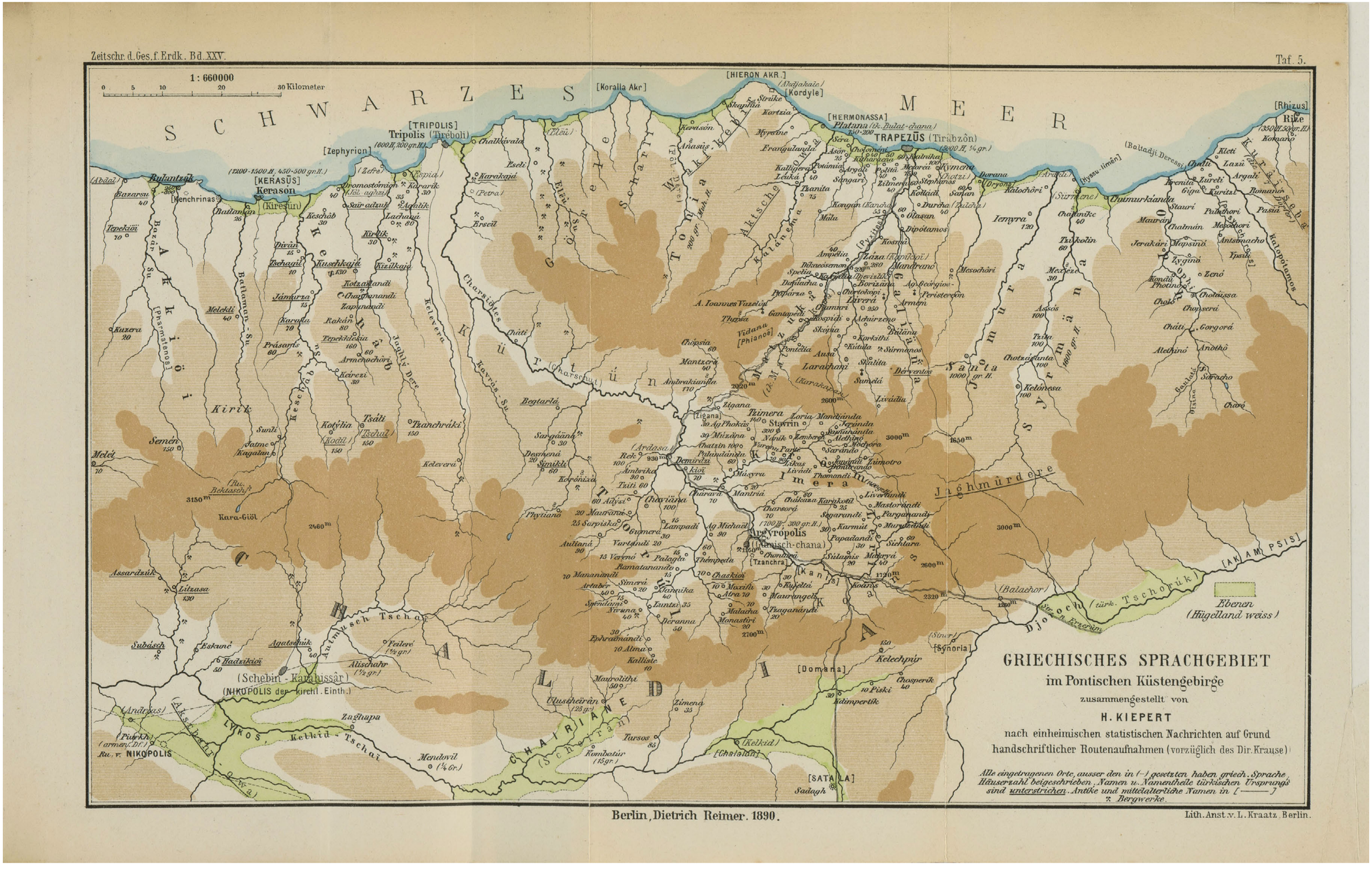

REISEWEGE IN KILIKIEN
aufgenommen 1891 und 1892 im Auftrage der kais. Akademie der Wissenschaften von
RUDOLF HEBERDEY UND ADOLF WILHELM
zusammengestellt im Anschluſse an Itinerare früherer Reisender von
Heinrich Kiepert.
Reductions-Verhältnis 1:900,000
(1/20 des Maſsstabes der Original-Construction.)
Reisewege früherer Erforscher
bezeichnet durch ihre abgekürzten Namen:
Ham Hamilton 1837
Sch Schönborn 1841–42 u. 1851
Sp Sperling 1962
Hi Hirschfeld 1874
S Seiff (mit Davis) 1875
F.M Fiore u. Mendrot 1875
P Puchstein 1882 u. 83
Ha Hartmann 1882–84
St Sittington Sterrett 1883
Hn Humann (mit Puchstein) 1883 u. 85
L (im Osten) v. Luschan 1885
(im Westen) Graf Lanckoroński mit Luschan 1884
R Ramsay 1890
K Kolde wey 1890–91
Höhenziffern in Metern, weniger sichere Höhen in unverstärkter Schrift und in Parenthese.
Druck des k. u. k. militär-geographischen Institutes.

Fig. 38

"Reisewege in Kilikien aufgenommen 1891 und 1892 im Auftrage der kais. Akademie der Wissenschaften von Rudolf Heberdey und Adolf Wilhelm zusammengestellt im Anschlusse an Itinerare früher Reisender" (1:900,000), map drawn by Heinrich Kiepert for Heberdey and Wilhelm, *Reisen in Kilikien ausgeführt 1891 and 1892* (1896). The scale is a reduction from an original twenty times that size. (BNF)

PROF. G. HIRSCHFELD's ARCHÆOLOGISCHE REISEROUTE
IM SÜDWESTLICHEN KLEINASIEN 1874.
G. Hirschfeld u. H. Eggert.
H. Eggert allein.
H. Kiepert 1870.
Ruinen des Altertums.
1 : 1,000,000.
Deutsche geographische Meilen. 15 = 1°.
H. Kiepert gez.
Berlin, D. Reimer
C. L. Ohmann lith.
MAEANDROS FL.
KARIEN
LYKIEN
PAMPHYLIEN
PISIDIEN
MYSIEN
MESSOGIS G.B.
MYKALE G.B.
LATMOS G.
GRION G.
THYMBRION
EPHESOS
MAGNESIA
TRALLEIS
NYSA
MASTAURA
ANTIOCHEIA
KARURA
HIERAPOLIS
LAODIKEIA
ATTUDA
HARPASA
ARKHODISIAS
KOLOSSAE
KADMOS
PRIENE
MYUS
MILETOS
HERAKLEIA
ALABANDA
ALINDA
LABRANDA
EUROMOS
MYLASA
IASSOS
STRATONIKEIA
LAGINA
HALIKARNASSOS
KAUNOS
SEBASTOPOLIS
ERIZA
DAWAS
TABAE
KIBYRA
SANDIRAS D.
BUBON
BALBURA
ORMELE
OLBASA
POGLA
KORMASA
TERMESSOS
ATTALEIA
SYLLEION
ASPENDOS
PERGE
SIDE
APAMEIA
APOLLONIA
KONANE
SELEUKEIA
(APORIOS-KOME)
AGRAE
LIMENAI
SAGALASSOS
SANDALION
KREMNA
BARIS
ANTIOCHEIA
Akschehr
PHILOMELION
SYNNADA
EUMENEIA
Sandukly
Ketschibazar
Bulladan
Tine
Ejerdir Göl
Hoïran Göl
Beischehr
Sighla Göl
TROGITIS
ORGANDA
PEGNELISSOS
ERYMNA
KATUMA
TACHANDYR
Gumalar D.
Kestel D.
Jan D.
Eles D.
Daurak D.
Dipoiras D.
Kara Dag
Sultan Dagh
Anamas Dagh
Boz Dagh
Bey D.
Kepez D.
Kara Hoh
Ak Dagh
Gök Tepe
Mughla
Dimbrek
Ushla
Sarutschla
Jenikbi
Hendjik D.
Aladyn D.
Ak Dagh
Kara Dagh
Kestel D.
Kepez D.
Gök Dagh
Kara Dagh
Kara Hoh
Kara Dagh
Kara Dagh
Kara Dag


1 : 660000
0 5 10 20 30 Kilometer
SCHWARZES MEER
[HIERON AKR.]
[Koralla Akr]
[TRIPOLIS]
Tripolis (Tireboli)
[Zephyrion]
[HERMONASSA]
Platana (tk. Bulat-chana)
TRAPEZUS (Tirabzôn)
[Rhizus]
Rize
[KERASUS]
Kerason (Kiresûn)
[Kenchrinas]
Bulantzâk
Bazarsu
Tepekâöi
Meleki
Kuzera
Semén
Melei
Kara-Giöl
Assardzük
Litzasa
Subâsch
Eskané
Hadzikiöi
Agatschnik
(Schebin - Karahissâr)
(NIKOPOLIS der kirchl. Einth.)
Alischahr
Ferlere
Zaghupa
Ketleid - Tschai
Mendovil
Pidrkh
Ru. v. NIKOPOLIS
Kerasûs - Tschai
Akdschakala - Owa
Kara-Tschai
Kelevera
Kavrás - Su
Charsiânes
Kürtün (Charsiân)
Tschati
Bentarlé
Sarçâânli
Desrhená
Simikli
Kotýria
Tsâli
Tschal
Khodil
Tkanchráki
Sunti
Jatme
Kagalan
Ru. Bektasch
Kara-Giöl
Ak Kiöi
Bazar Su
Pharmatenos
Kirik
Ballaman
Ballaman - Su
Meleki
Jaghlî Dere
Kerasûs - Su
Kotzanandi
Chatzhanandi
Zapundschi
Rakán
Tepekiöskia
Armenochôri
Kairezi
Prásanis
Karafta
Jánkurza
Divân
Tschagil
Kusehkaiéi
Kizilkaiéi
Kürtlik
Lachanii
Aqualik
Kaschâb
Sair adzuk
Inomostómion
(Jöl. aghzi)
Karanik
Karakaiéi
Erseil
Tzeli
Chalkávala
(Eleû)
(Zefre)
(Espia)
(1200-1500 H. 450-500 gr. H.)
(600 H. 200 gr. H.)
Gök Irmak (Iris)
Tomia Akschehr
Altsche Kalaiema
Galiarâne
Mavrozúmi
(tk. Karakaiéi)
Ak Dere
Ak Su
Ak Dere
Ak Su
Ak Dere
Ak Su

ÜBERSICHTSKARTE DES SÜDWESTLICHEN KLEINASIEN.
Redigirt von H. Kiepert.
1:2.700000.
Lithographie u. Schnellpressendruck des k.k. milit. geograph. Institutes, Wien.
AEGAEISCHES MEER
KARIA
LYDIEN
PHRYGIEN
LYKIEN
PAMPHYLIEN
PISIDIEN
LYKAONIEN
KILIKIEN
KAPPADOKIEN
Smyrna
Ephesos
Magnesia
Milet
Halikarnassos
Rhodos
Kos
Samos
Ikaria
Patmos
Lipsos
Leros
Kalymnos
Amorgos
Astropalia
Anaphi
Nisyros
Tilos
Symi
Chalki
Karpathos
Saros
Chios
Lesbos
Mytilene
Pergamon
Thyatira
Sardes
Philadelphia
Nazilli
Aidin
Tire
Odemisch
Tschesme
Varla
Magnesia
Afiûn-Karahissar
Akserai
Konia
Ikonium
Seidischehr
Adalia
Eski Adalia
Selefke
Seleukia
Mut
Ermenek
Lamas
Karaman
Laranda
Eregli
Ismid
Kutschuk Tschai
Menderes
Kara Su
Akar Su
Sakaria
Sangarius
Tschai
Tschai
Tschai

Fig. 42

"Karte von Pamphylien und Pisidien" (1:300,000) drawn by Heinrich Kiepert for Karl Lanckoroński, *Städte Pamphyliens und Pisidiens* (1890–1892).
(Princeton University Library)

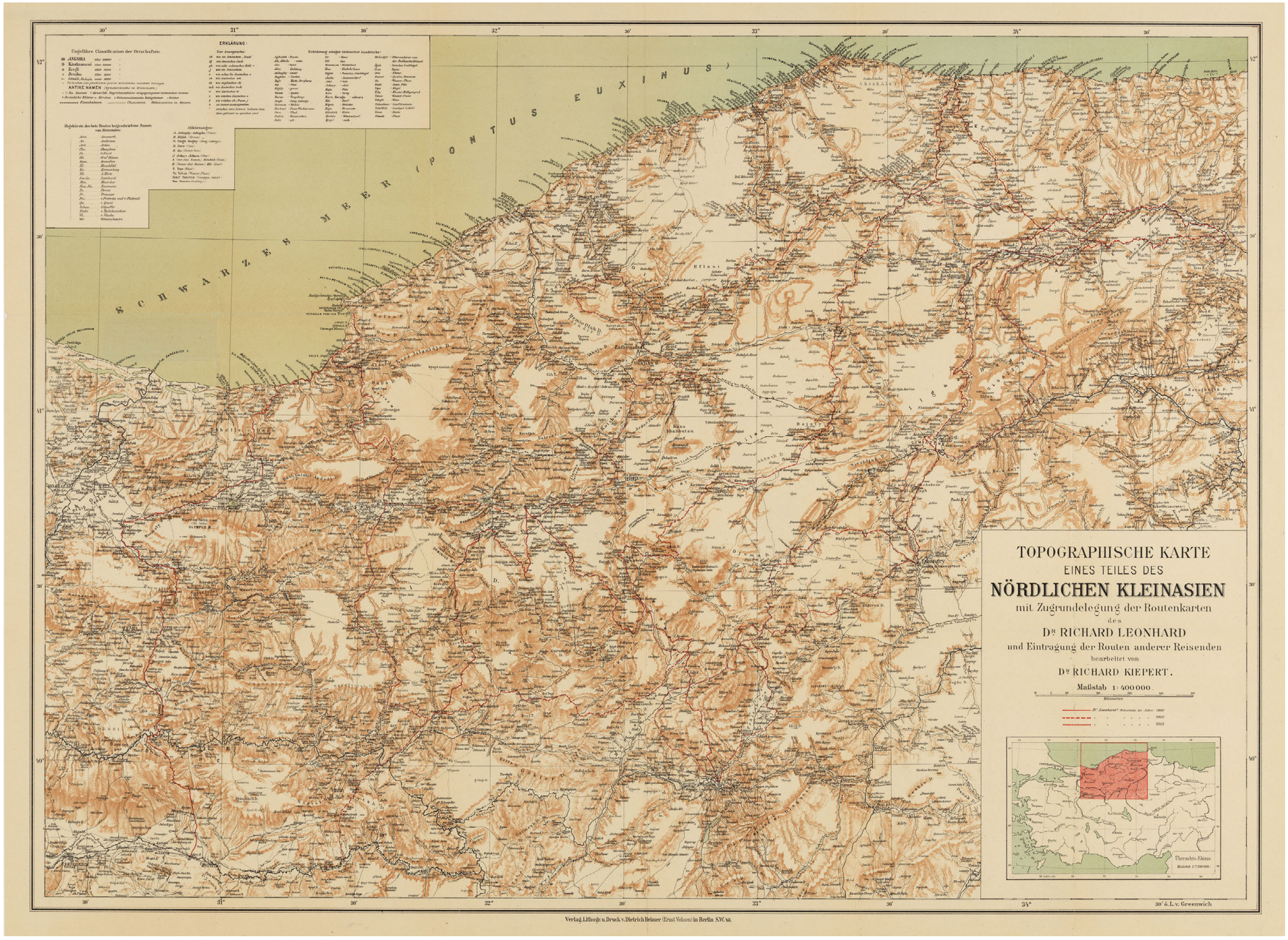


Fig. 43

"Topographische Karte eines Teiles des nördlichen Kleinasien mit Zugrundelegung der Routenkarten des Dr Richard Leonhard und Eintragung der Routen anderer Reisenden" (1:400,000) produced by Richard Kiepert in 1908 for Leonhard's *Paphlagonia, Reisen und Forschungen im nördlichen Kleinasien* (1915). This map mosaics *KvK* AIII in its entirety with parts of AII, AIV, BII, BIII and a small part of BIV (ed. 1 in each instance, except AIV). (UNC Chapel Hill)

GEOLOGISCHE ÜBERSICHTSKARTE
EINES TEILES DES
NÖRDLICHEN KLEINASIEN
nach eigenen Beobachtungen und Verwertung älterer Angaben
bearbeitet von
Dr RICHARD LEONHARD

Maßstab 1:400000

SCHWARZES MEER (PONTUS EUXINUS)

Verlag Lithogr. u. Druck v. Dietrich Reimer (Ernst Vohsen) in Berlin SW. 68.

Fig. 44

"Geologische Übersichtskarte eines Teiles des nördlichen Kleinasien nach eigenen Beobachtungen und Verwertung älterer Angaben bearbeitet von Dr Richard Leonhard" (1:400,000) produced by Richard Kiepert in 1908 for Leonhard's *Paphlagonia, Reisen und Forschungen im nördlichen Kleinasien* (1915). This map's base is identical to that of **Fig. 43**. (UNC Chapel Hill)

CARTE DE L'ASIE MINEURE

Pour le Voyage d'OLIVIER Membre de l'Institut National de France.

Construite par A.G. Dezauche Fils *Ingénieur Hydrographe de la Marine,*

An 1806.

Longitude Orientale du Méridien de Paris

MER NOIRE

MER DE MARMARA

MER MÉDITERRANÉE

L. de CYPRE

ECHELLES.

Lieues Communes de France de 25 au Degré.

Lieues Marines de France de 20 au degré.

Stades dont environ 1100 valent un Degré.

Stades dont 750 valent un degré.

Gravé par J.B. Tardieu.

Fig. 45

"Carte de l'Asie Mineure," planche 48 (p. 35) in G. A. Olivier, *Atlas pour servir au voyage dans l'empire Othoman, l'Égypte et la Perse*, troisième livraison (Paris: Agasse, 1807), with notes on co-ordinates and travel times (in hours) on pp. vj-viij. Note that the route drawn from Celindro north to Caraman — his own route in September 1798 presumably — keeps west of Moud without diverting there. According to William Leake (1824) 37, who traveled in the reverse direction in 1800, this was the way to Cyprus normally chosen by the Grand Vizier's Tatar couriers because the sea-crossing was shorter than through Adalia. (Wellcome Collection)

SYRIEN UND MESOPOTAMIEN

zur Darstellung der Reise des Dr Max Freiherrn von Oppenheim

vom Mittelmeere zum Persischen Golf,

1893.

Bearbeitet von Dr Richard Kiepert.

I.

Westliches Blatt.

Maßstab 1: 850000.

Kilometer (Mittel-Lf)

BARDÂD Orte über 50000 Einwohner
ALEPPO Orte über 20000 Einwohner
Kêin Orte über 10000 Einwohner
Jilliaman Orte über 5000 Einwohner
Batrûn Orte über 2000 Einwohner
Arsûz, Basûz Orte unter 2000 Einwohner
ISSUS antike Namen.

Eisenbahnen
Chausseen

Reiseroute des Freiherrn M. von Oppenheim.
Höhen in Metern.

a. Befestigter Lager. ✝ Heiligengrab, Minaret. ▵ Ru. Ruinen. ▲ Thurm.

Zur Transscription: s ist weich, wie im Französischen, s scharf zu sprechen. Die emphatischen Consonanten sind durch einen darunter gesetzten Punkt unterschieden (d, h, k, s, t, z). Die Gutturalen sind mit ch (wie in „Rache"), ṛ (sonst gh, ein weiches in der Kehle gesprochenes r) und ḥ (ein scharfes Kehlhauch) wiedergegeben. g franz. j, auch dj, dsch. ṯ = engl. th, ḏ = weich d, ṭ zwischen zwei Vocalen, bedeutet, dass sie getrennt gesprochen werden.

Abkürzungen geographischer Bezeichnungen.

B. = Bâjûk (gross)
Ch. = Chân, Charâbe, Chirbe (Ruinenstätte)
D. = Dâg (Gebirge)
D. = Dere Dereh (Thal)
G. = Gebel (Gebirge)
K. = Kütschük (klein)
K. = Kasr, Kal'a, türk. Kule (Burg, Schloss)
N. = Nahr (Fluss)
T.T. = Tell (Hügel), Mehrzahl Tulûl
W. = Wâdi (Flussbett, Trockenth.)
Zij. = Zijâre (Heiligengrab)

Abkürzungen von Namen von Reisenden.

Ainsw. Ainsworth
Bl. Blanckenhorn
Bu. Burckhardt
Ch. Chesn. Chesney (a. th. mit Murphy u. Ainsworth)
Dr. Burton and Drake
E.S. Eli. Smith
Hu. Hartm. Hartmann
Hausskn. Hausknecht
H. u. W. Haberlandt und Wilhelm
Horn. Hornemann
Kol. Kolloway
v.L. von Luschan
Mo. Mor. Moritz
P. Porter
Press. Pressel
Puch. Puchst. Puchstein
Sach. Sachau
Schr. Schröder
St. Stavett
Stüb. Stübel
de V. de Vogüé
We. Wetzstein

35° ö. L. v. Greenwich 36° 37° 38° 39° 40°

37° 36° 35° 34° 33°

Geographische Verlagshandlung
DIETRICH REIMER (ERNST VOHSEN) BERLIN
Wilhelmstrasse 29.

Fig. 46a

"Syrien und Mesopotamien, I. Westliches Blatt" (1:850,000) produced by Richard Kiepert for Max von Oppenheim, *Vom Mittelmeer zum Persischen Golf durch den Haurän, die Syrische Wüste und Mesopotamien* (1899–1900). (Princeton University Library)

SYRIEN UND MESOPOTAMIEN

zur Darstellung der Reise des Dr Max Freiherrn von Oppenheim
vom Mittelmeere zum Persischen Golf,
1893.

Bearbeitet von Dr Richard Kiepert.

II.

Östliches Blatt.

Maßstab 1: 850000.

0 5 10 20 30 40 50 60 70 80 90 100 Kilometer (Ulla = 1°).

BARDÂD Orte über 10000 Einwohner
MANBIJ Orte über 20000 Einwohner
Eğin Orte über 10000 Einwohner
Adiaman Orte über 5000 Einwohner
Hatrûn Orte über 2000 Einwohner
Arsûz Kwâid Orte unter 2000 Einwohner
ISSUS antike Namen
Projectirte Eisenbahn
Reiseroute des Freiherrn Max von Oppenheim.
Höhen in Metern.
ss. Rodosto Lager. Heiligengrab. Mouvet. Ibn Bulinar. Thorm.

Wegen der Transscription und der Höhenzeichnung vgl. das Westliche Blatt.

Geographische Verlagshandlung
DIETRICH REIMER (ERNST VOHSEN) BERLIN
Wilhelmstrasse 29.

Fig. 46b

"Syrien und Mesopotamien, II. Östliches Blatt" (1:850,000) produced by Richard Kiepert for Max von Oppenheim, *Vom Mittelmeer zum Persischen Golf durch den Haurän, die Syrische Wüste und Mesopotamien* (1899–1900). (Princeton University Library)

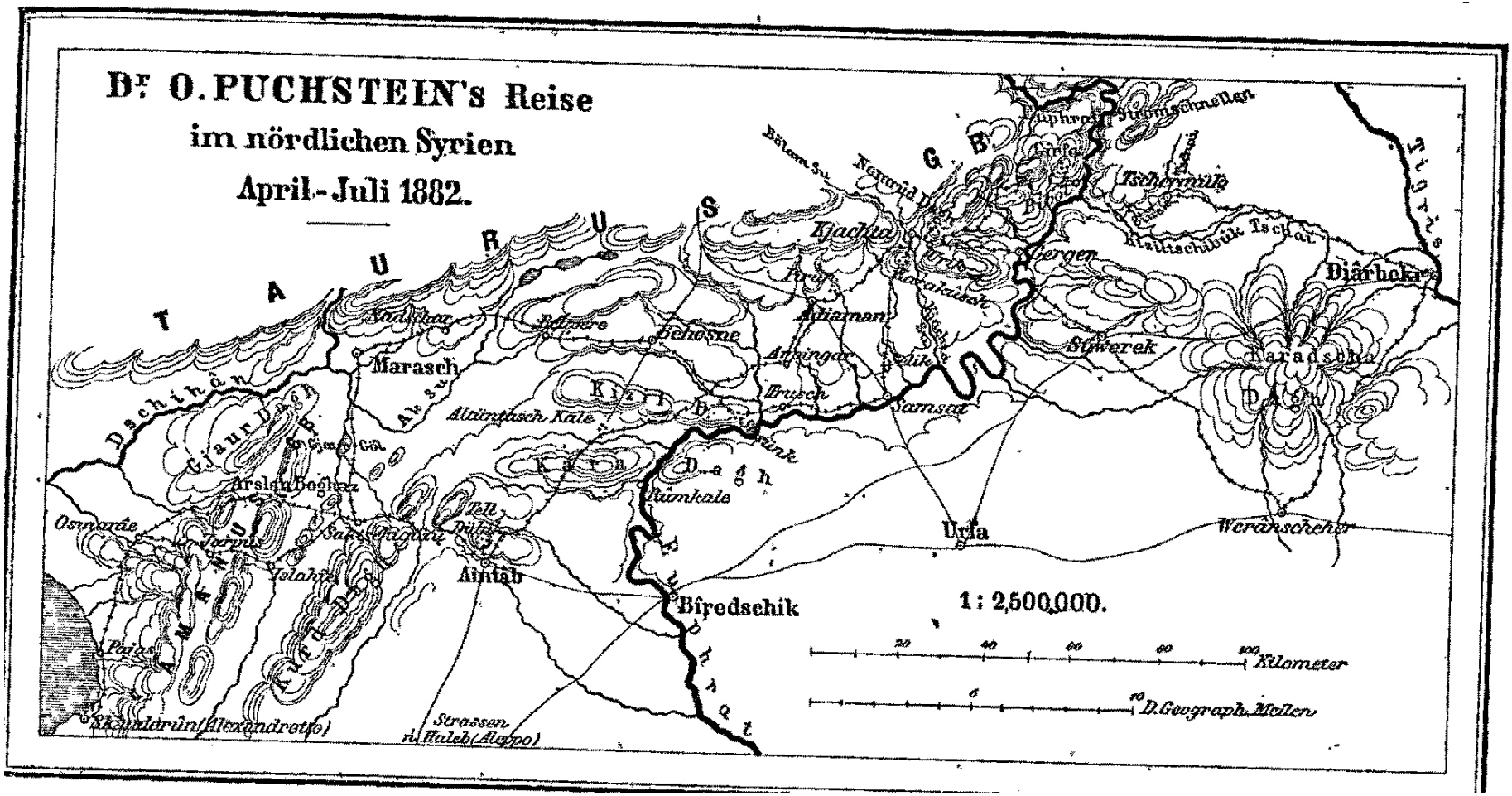


Fig. 47

"Dr. O. Puchstein's Reise im nördlichen Syrien April — Juli 1882" **(**1:2,500,000), map drawn by Heinrich Kiepert in his 1883 article "Dr. O. Puchstein's archäologische Reise im nördlichen Syrien, I." (Princeton University Library)

C. HUMANN's Aufnahme der Route BRUSSA-ANGORA, 1882.

ÜBERSICHT DER GANZEN REISE.

1 : 600,000

Höhen in Metermaß.

C. HUMANN's Aufnahme der Route ANGORA-SAMSUN, 1882.

Ö. L. v. Paris.

Druck v. C. L. Keller.

C. Ohmann lith.

VERLAG von DIETRICH REIMER in BERLIN 1890.

Fig. 48

"C. Humann's Aufnahme der Route Brussa-Angora, 1882" and "C. Humann's Aufnahme der Route Angora-Samsun, 1882," two-part map I (1:600,000) with overview inset drawn by Heinrich Kiepert for the *Atlas* accompanying C. Humann and O. Puchstein, *Reisen in Kleinasien und Nordsyrien* (1890). (Princeton University Library)

KARTE

DES NÖRDLICHSTEN THEILES von SYRIEN

nach den Zeichnungen und Reiseberichten
von
DR CARL HUMANN,
DDR O. PUCHSTEIN, M. HARTMANN und B. MORITZ
gezeichnet von
H. KIEPERT.

VERLAG von DIETRICH REIMER in BERLIN 1890.

Kilometer, III, 1 = 1" 1 : 300.000. Englische Statute Miles, 69, 1 = 1°

Routen.
C. HUMANN mit Puchstein und v. Luschan, 1883.
O. PUCHSTEIN mit Sester, 1887.
Ev. LUSCHAN (Excursion am Euphrat) 1883.
M. Hartmann 1882 - 85. B. Moritz 1885.

Namen der anderen Reisenden sind ihren Routen beigeschrieben.

Die Höhencurven bezeichnen den Umfang der vom Techniker nach eigener Anschauung entworfenen Terrainstufen, nämlich: C. Humann's Original-Aufnahmen, d. die Terrainangaben der Englischen Ingenieure unter H. Trotter's Direction, d. Wege der Küste des Britischen Ing. Aufnahmen (Maxwell & Brocker 1838).
Die durch eingeklammerte Höhenzahlen (in Metern) wie 370 m. ausgedrückten sind verschätzt, die übrigen sicherer wie 372 Meter gemessen.
Die aus den Beobachtungen von M. Puchstein u. v. Luschan berechneten Höhen sind (vorläufig) unsicher.

Khosek D.
Sadjur D.
Magnesch B.
Akbar B.
Bulgar Dagh
Bozkir D.
Beech-Tepe
Kara Dagh
Djobur D.
Hamam Dereh
Tschelikdjoli
Tschelikdjoli Yaila
Ovasi
Andérin
Baldasi D.
Bazardjik Ovasi
Scheker Ovasi
Ak Dagh
Kara Bunar
Kara Bunar Dagh
Kara Bunar Ovasi
Kara Bunar Yaila
Kara Bunar Su
Kara Bunar Tschai
Kara Bunar Tschai Yaila
Kara Bunar Tschai Ovasi
Kara Bunar Tschai Su
Kara Bunar Tschai Dagh

Fig. 50

"Dr. O. Puchstein's Routen mit Sester zwischen Euphrat und Tigris 1882. Anschliessend an den östlichen Rand der Hauptkarte" (1:300,000), map III (continuation of II above) drawn by Heinrich Kiepert for the *Atlas* accompanying C. Humann and O. Puchstein, *Reisen in Kleinasien und Nordsyrien* (1890). Puchstein's companion Karl Sester (also named on map II above) was a German road engineer. (Princeton University Library)

Fig. 51

"Übersicht der Länder am oberen Euphrat u. Tigris" (1:2,500,000), map drawn by Heinrich Kiepert for Eduard Sachau, "Ueber die Lage von Tigranokerta" (1880) Taf. I. With it are one inset of Tigranokerta's location, and another of the region as represented on the Late Roman Peutinger Map. It too, like *SpecK* and *KvK*, was largely constructed from travelers' itineraries (see Talbert 2010). (Staatsbibliothek zu Berlin)

Fig. 52

"Der westliche Theil des Ṭōr oder Masios nach E. Sachau's Reisebericht und Messungen entworfen von H. Kiepert" (1:500,000), map drawn by Heinrich Kiepert for Eduard Sachau, "Ueber die Lage von Tigranokerta" (1880) Taf. II. (Staatsbibliothek zu Berlin)

E. SACHAU's ROUTEN IN SYRIEN

construirt von H. KIEPERT. Berlin 1882.

Maßstäbe und Erklärungen siehe auf dem anderen Blatte.

Wegstück N. von APAMEA im doppelten Maßstabe (1:375,000)

Route am Euphrat und Sâdjûr im doppelten Maßstabe (1:375000)

F.A. Brockhaus' Geogr.-artist. Anstalt, Leipzig.

Fig. 53

"Routen in Syrien" (1:750,000), map drawn by Heinrich Kiepert for Eduard Sachau, *Reise in Syrien und Mesopotamien* (1883). (Staatsbibliothek zu Berlin)

E. SACHAU's
ROUTEN IN MESOPOTAMIEN
construirt von H. KIEPERT, Berlin 1882.
Maßstab 1:750.000.
Umgegend von TIGRANOCERTA im doppelten Maßstabe
Greenwich
Paris
DIJÂR BEKR
AMIDA
Karadja Dagh
(Basaltgebirge)
Schatt (Diğle) Tigris
Samsat
SAMOSATA
Birecik
EDESSA
URFA
BERÂZIJE
Mardin
TIGRANOCERTA
Nisibin
NISIBIS
RESAINA
Ras el Ain
THEODOSIOPOLIS
Djebel Tûr
Djebel Abdul-aziz
Tûlâbâ
Djebel el Bishri
Meskene
Kalat Balis
BARBALISSUS
NICEPHORIUM
er Rekka
RESAPHA
Sheddâdijje
Djebel Sindjâr
Tel Afar
MOSUL
NINIVE
Djezirel-Ibn'Omar
Midjad
Tâkhô
Butma D.
Djebel Alkosh
Tel-Képé
el Hadr
HATRA
Kal'a Shirgat
Hamrat Dubbâni
Kal'at Mah hil
Tel Afaria
Tel Ermen
Tel Kerrije
Tel Kilbin
Tel Reshi (Gebotha)
Tel Ferrasch
Tel Schorra
Tel Ghirgan
Tel Abni Kadar
Tel Schâbi
Tel Schâbi
Tel Ghirgan
Tel Ghirgan
Tel Ghirgan

Dr F. SARRE's
Reise in Phrygien, Lykaonien,
Isaurien und Pisidien 1895.
Nach seinen und des Dr. med. A. Osborne Beobachtungen und Skizzen
construirt und gezeichnet von
Dr RICHARD KIEPERT.
Maasstab 1 : 300 000
Dr F. SARRE's
Route im Nordosten von Konia 1895
im halben Maasstabe der Hauptkarte
(1 : 600 000)
Erklärung türkischer Ausdrücke:
31° östl. Länge v. Greenwich
33° östl. Länge v. Greenwich
Geographische Verlagshandlung
DIETRICH REIMER in BERLIN,
ERNST VOHSEN

Fig. 55

"Dr. F. Sarre's Reise in Phrygien, Lykaonien, Isaurien und Pisidien 1895" (1:300,000), with inset of his routes north-east from Konia (1:600,000), map drawn by Richard Kiepert for Friedrich Sarre, *Reise in Kleinasien, Sommer 1895: Forschungen zur seldjukischen Kunst und Geographie des Landes* (1896). Compare the inset with *KvK* (1:400,000) map CIII ed. 1 undated [1901] [**Fig. 17**]. In Ramsay's opinion (1906, 254, quoted above), Richard Kiepert's mapping here was far from accurate. (Princeton University Library)

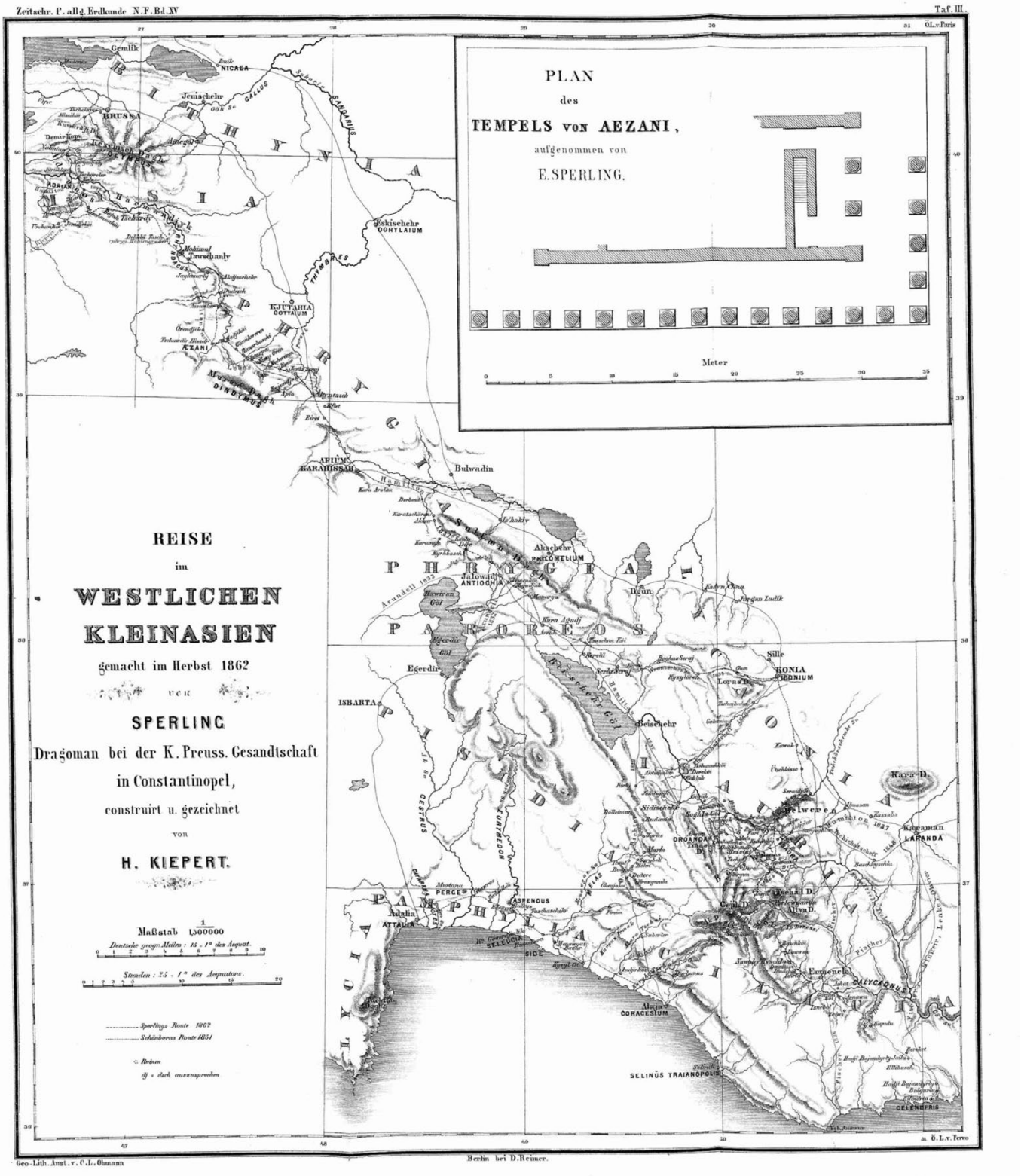


Fig. 56

"Reise im westlichen Kleinasien gemacht im Herbst 1862 von Sperling" (1:1,500,000**),** map drawn by Heinrich Kiepert for Sperling's account of this exploration, published posthumously (1863). (Staatsbibliothek zu Berlin)

Routes made in 1884 and 1885
by
Dr J. R. S. STERRETT
in ancient
CILICIA, LYCAONIA, ISAURIA AND PISIDIA
and constructed from his observations and measurements
by
HENRY KIEPERT
Berlin 1886.

Scales (1:600,000)
English Miles
Kilometres

Western continuation to the Aidin-Railway-Terminus

Names of other travellers are placed along their respective routes in this character, as e.g. v. Moltke, Vrontchenko

Abbreviations of Turkish words
A. Ashagha (lower) Y. Yukarա (upper)
B. Beyük (great) K. Küchük (little)
D. Dagh (mountain) T. Tepe (cone or hill)
Dd. Duden (place where the water sinks under ground)
v. Yaila (summer abode of villagers)
R. ancient Ruins.

Published 1887.

Lithogr. and printed by C.L. Keller, Berlin S.

Fig. 57

"Routes made in 1884 and 1885 by Dr. J. R. S. Sterrett in ancient Cilicia, Lycaonia, Isauria and Pisidia and constructed from his observations and measurements" (1:600,000), map I drawn by Heinrich Kiepert in 1886 for *Papers of the American School of Classical Studies at Athens* 3 (1884–1885). Note that many earlier travelers' routes are also marked.
(UNC Chapel Hill)

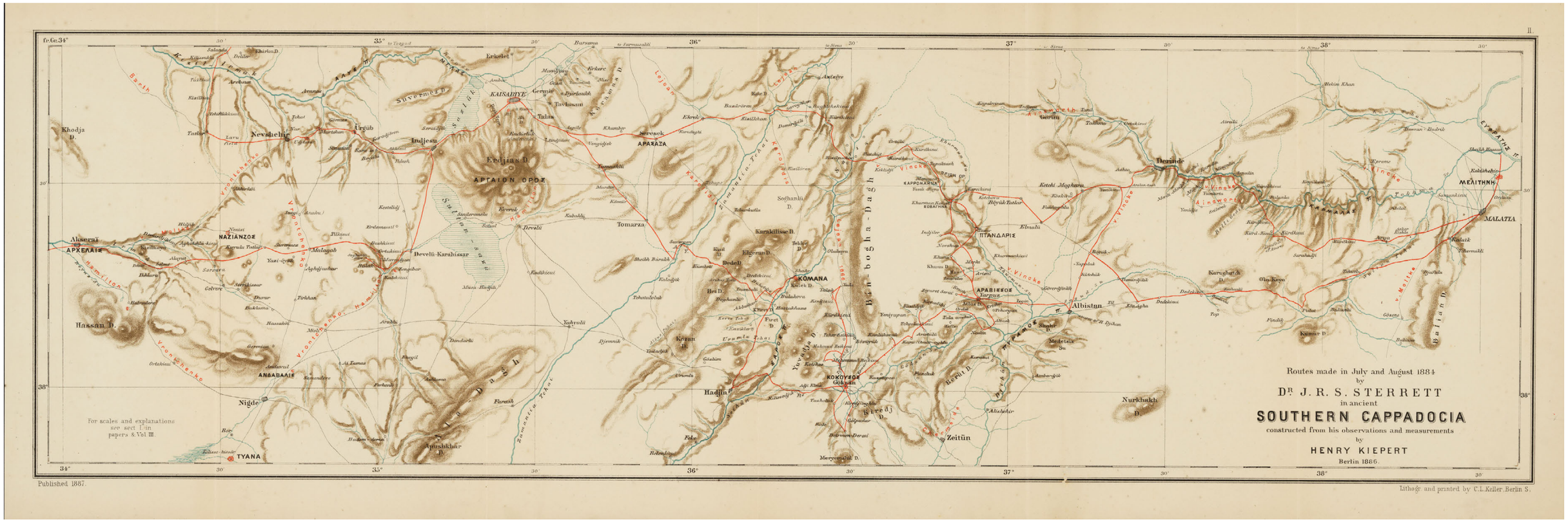


Fig. 58

"Routes made in July and August 1884 by Dr. J. R. S. Sterrett in ancient southern Cappadocia constructed from his observations and measurements" [1:600,000], map II drawn by Heinrich Kiepert in 1886 for *Papers of the American School of Classical Studies at Athens* 2 (1883–1884). Note that many earlier travelers' routes are also marked. (UNC Chapel Hill)

Fig. 59

"Routes made in Sept. 1884 by Dr. J. R. S. Sterrett in ancient northern Cappadocia constructed from his observations and measurements" [1:600,000], map III drawn by Heinrich Kiepert in 1886 for *Papers of the American School of Classical Studies at Athens* 2 (1883–1884). Note that several earlier travelers' routes are also marked. (UNC Chapel Hill)

Fig. 60

"Routes made in Aug. & Sept. 1885 by Dr. J. R. S. Sterrett in ancient Isauria constructed from his observations and measurements" (1:300,000), map IV drawn by Heinrich Kiepert in 1886 for *Papers of the American School of Classical Studies at Athens* 3 (1884–1885). Note that three earlier travelers' routes are also marked. (UNC Chapel Hill)

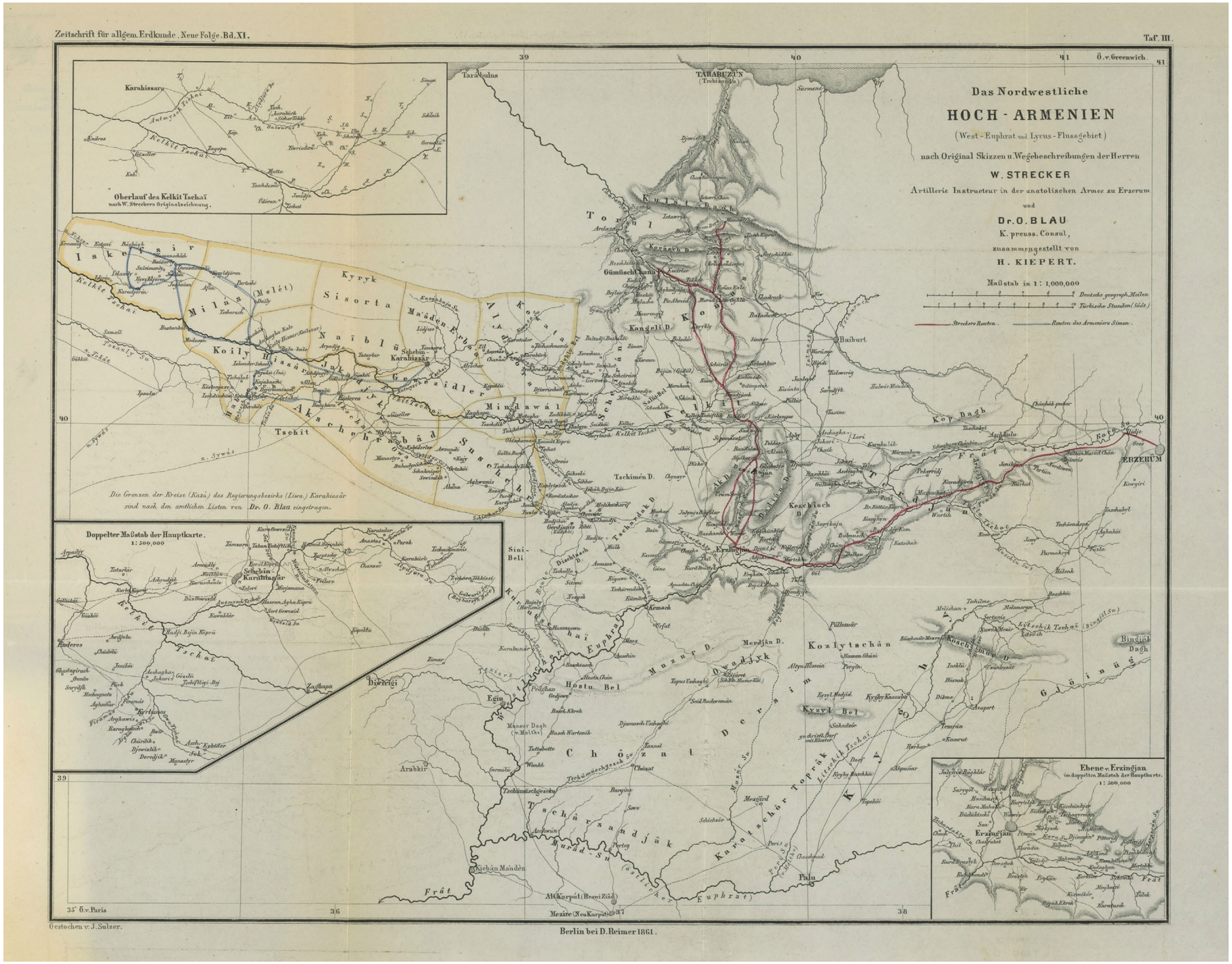


Fig. 61

"Das nordwestliche Hoch-Armenien (West-Euphrat und Lycus-Flussgebiet)" (1:1,000,000) map (Taf. III) drawn by Heinrich Kiepert for Wilhelm Strecker's two-part article "Topographische Mittheilungen über Hocharmenien" (1861), with Nachwort by Otto Blau and Bemerkungen about the map by Kiepert. Note the units in the two scalebars: German geographical miles, and Turkish hours. (Staatsbibliothek zu Berlin)

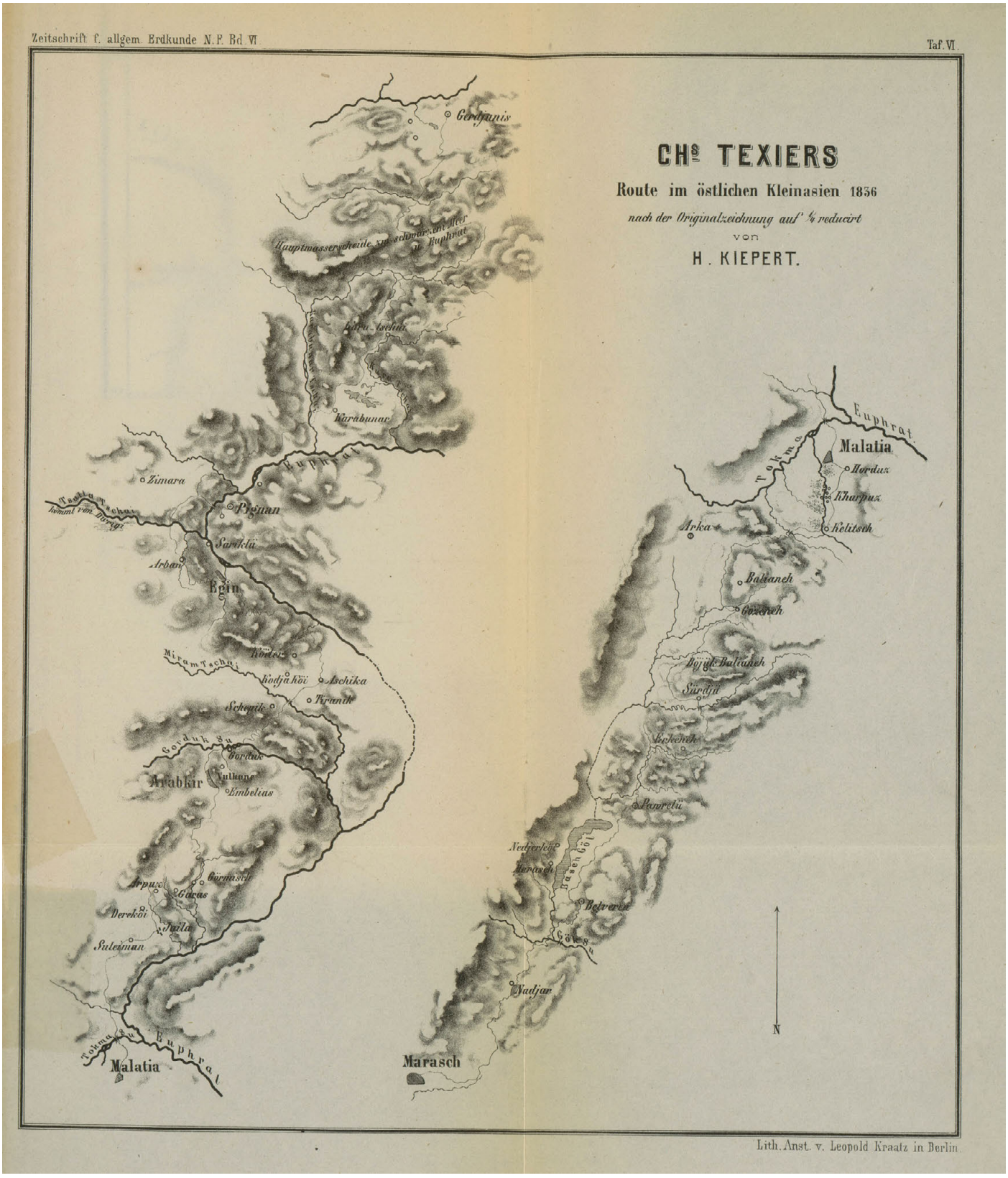


Fig. 62

"Chs Texiers Route im Östlichen Kleinasien 1836 nach der Original-zeichnung auf ¼ reducirt" (no scale stated), map (Taf. VI) drawn by Heinrich Kiepert for his "Beilage" written to accompany Tschichatschef's record (1859) of travels in 1858: see **Fig. 63**. (Staatsbibliothek zu Berlin)

Fig. 63

"P. v. Tschichatscheff's (*sic*) Routen im nordöstlichen Kleinasien und Armenien im Sommer 1858" (1:1,000,000), map (Taf. V) drawn by Heinrich Kiepert (with "Beilage," pp. 336–43) to accompany Tschichatschef's record of these travels (1859). (Staatsbibliothek zu Berlin)

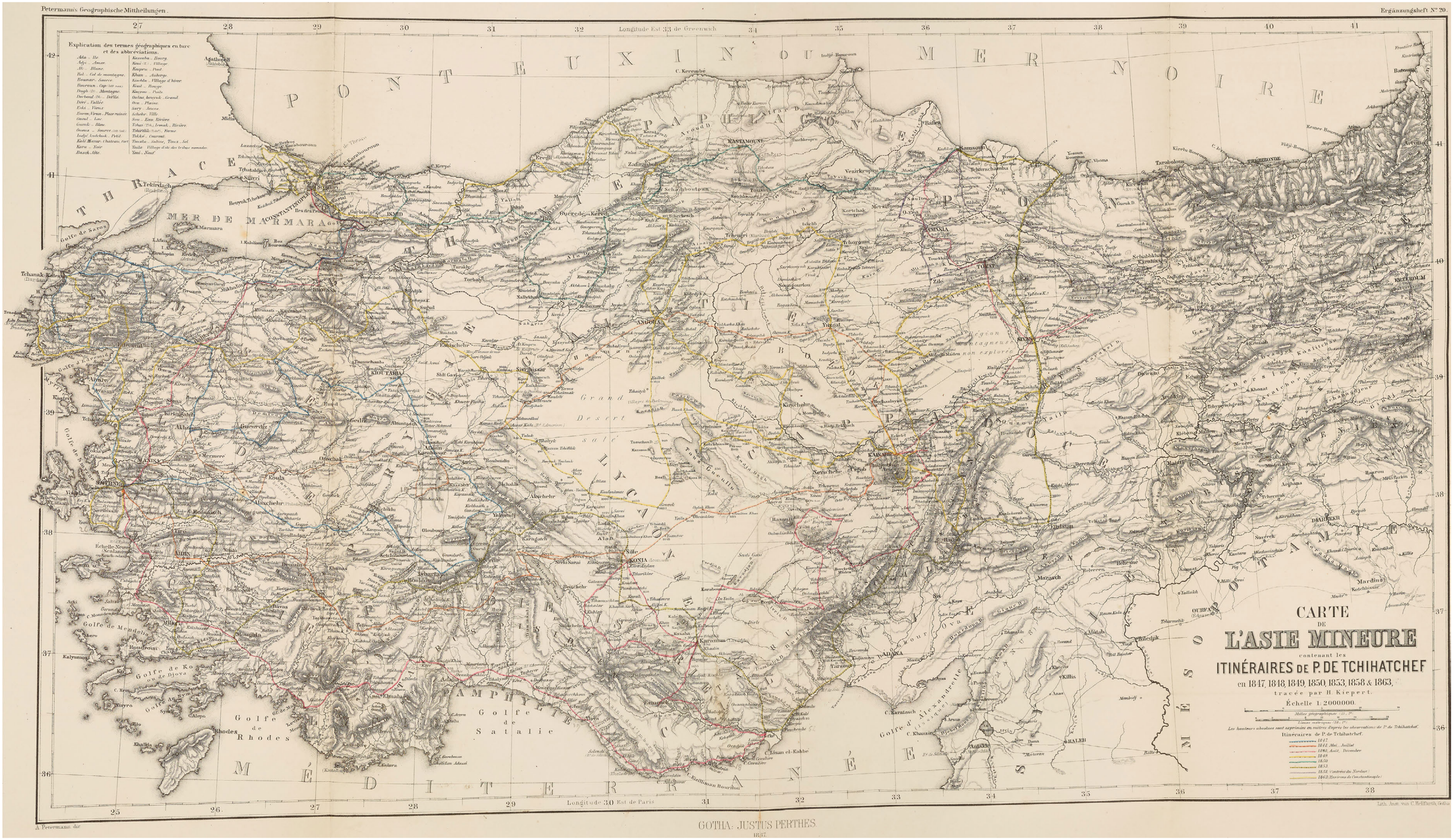


Fig. 64

"Carte de l'Asie Mineure contenant les itinéraires de P. de Tchihatchef en 1847, 1848, 1849, 1850, 1853, 1858 & 1863" (1:2,000,000), map drawn by Heinrich Kiepert (with "Vorwort," pp. VI–VIII) for *P. v. Tschihatscheff's Reisen in Kleinasien und Armenien 1847–1863* (1867). The coloring of routes by year, season and region is invaluable.
(Princeton University Library)